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ABSTRACT

Annual reports of two federal education programs for FY 1970 comprise this document: Title II of the Elementary and Secondary Education Act and Title III of the National Defense Education Act. Both reports describe how the 50 states, the District of Columbia, Puerto Rico, Guam, American Samoa, the Virgin Islands, the Trust Territory of the Pacific Islands, the Department of the Interior (for schools operated by its Bureau of Indian Affairs), and the Department of Defense (for overseas dependents' schools) utilized their program funds. Areas covered in the first report include standards for instructional materials, selection of materials, effect on curriculum and teaching methods, special-purpose grants, special programs, program evaluation, state and local needs for instructional materials and management, improved management techniques, accessibility of loaned materials, coordination with other programs, participation by private school teachers and children, and staffing and staff development. The major sections of the second report delineate state education agency services to local education agencies, priorities, coordination with other programs, reimbursement and adequacy of equipment and materials, evidence of improved instruction (instructional patterns/techniques, curriculum, student achievement), evaluation, and data on fund sources and expenditures. Both reports provide supportive statistics. (JD)

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# SCHOOL LIBRARY RESOURCES, TEXTBOOKS, AND OTHER INSTRUCTIONAL MATERIALS TITLE II, ESEA

Reprint from:

State Departments of Education and Federal Programs

Annual Report Fiscal Year 1970

U. S. Department, of Health, Education, and Welfare
Office of Education

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U. S. Office of Education
Bureau of Libraries and Learning Resources

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# III.

# School Library Resources, Textbooks, and Other Instructional Materials

## Title II

## ELEMENTARY AND SECONDARY EDUCATION ACT OF 1965 (Public Law 89-10) as amended

### Fiscal Year 1970

Title II of the Elementary and Secondary Education Act of 1965 (Public Law 89–10), as amended, provides direct Federal assistance for the acquisition of school library resources, textbooks, and other instructional materials for the use of children and teachers in public and private elementary and secondary schools. Its purpose is to improve the learning ability of children by making available high quality instructional materials.

The record of successful achievement is unmistakable, and has been limited only by the level of funds available. Except for the first year, there has been a steadily increasing gap between rising authorizations and falling appropriations during fiscal years 1966–70 as shown in the following tabulation:

| Fiscal year | Authorization | Appropriation |
|---|---|---|
| 1966 | $100,000,000 | $100,000,000 |
| 1967 | 125,000,000 | 102,000,000 |
| 1968 | 150,000,000 | 99,200,000 |
| 1969 | 162,500,000 | 50,000,000 |
| 1970 | 210,000,000 | 42,500,000 |

The appropriations—after 3 percent was set aside for allotment among Puerto Rico, Guam, American Samoa, the Virgin Islands, the Trust Territory of the Pacific Islands, the Department of the Interior (for schools operated by its Bureau of Indian Affairs), and the Department of Defense (for overseas dependents' schools)—were apportioned among the States (and the District of Columbia) on the basis of the number of children enrolled in public and private schools in the State in proportion to the national total of such children. States applied for grants within their allotments by submitting plans which set forth their programs and their criteria for selecting and allocating the authorized materials; by giving assurances that children and teachers in private schools would share equitably in the programs; and by giving assurances that the Federal aid would be used not to supplant State or local funds but to supplement, and as far as possible to stimulate, additional State and local (including private) funding.

The fiscal year 1970 appropriation was not only diminished, but delayed. Funds did not become available to the States until April 1970—the ninth month of the fiscal year in which they were to be used. Annual reports made by the States on use of title II funds therefore frequently focus on adjustments that had to be made as a result.

### SUPPORT OF INSTRUCTION

The State reports indicate that title II funds have contributed to improvement of educational quality in a number of ways, such as:

- Development and revision of standards for instructional materials;
- Selection of materials appropriate for pupils and teachers who will use them;
- Use of instructional materials in school programs for innovative, curricular, and instructional techniques;

- Demonstration of superior media programs;
- Support of special educational programs such as those for pupils in hospitals, correctional institutions, and schools for the mentally and physically handicapped;
- Provisions of materials for use in bilingual and early childhood education programs;
- Support of instruction in the area of social problems, such as drug abuse and environmental ecological education.

**Standards for Instructional Materials**

An important function in the administration of title II is the development, revision, dissemination, and evaluation of standards relating to the selection, acquisition, and use of school library resources, textbooks, and other instructional materials. State department of education personnel administering title II direct the revision or development of these standards; however, it is common practice to organize a committee composed of State agency personnel, school administrators, directors of instruction, teachers, media specialists, and private school representatives to formulate standards. *Standards for School Media Programs*, prepared by the American Association of School Librarians (AASL) and the Department of Audiovisual Instruction (DAVI) of the National Education Association, is widely used as a basis for State standards.

Following are some examples of standards development as reported by State departments of education:

- In *Delaware*, standards for media centers have been endorsed by professional groups in the State and presented to the State Superintendent's Advisory Committee of Chief School Officers for their approval.
- *Proposed Standards for School Media Programs* were sent to the *Rhode Island* Board of Regents for approval.
- *Colorado* is developing new standards which will affect the selection, acquisition, and use of school media resources. A newly adopted system of accreditation by contract will allow more diversification in school media programs, since it is tailored to meet the particular needs of individual school districts.
- The *Ohio* State Board of Education adopted, effective at the beginning of the fiscal year, *Minimum Standards for Elementary Schools*, and included guides for optimum media programs as well.
- *South Dakota* released *Minimum Standards for Accreditation of K–12 School Systems*, which included instructional materials standards.
- *Wisconsin* combined its *Instructional Media Center* and *Audiovisual Standards* into one statement.
- The *Nebraska* Educational Media Association and the State ESEA title II administrative staff have urged the local school districts in their self-evaluations to use the national standards as a guide until the Nebraska standards are adopted.
- *Iowa* has produced *Plan for Progress in the Media Center, K–6*, and *Plan for Progress in the Media Center, 7–12*. Both publications have been made available to all school administrators and media personnel in the State.
- The *Florida* Department of Education reported that it was engaged in the revision of accreditation standards for public schools. These include standards related to the selection, acquisition, and utilization of school library resources, textbooks, and other instructional materials. During the school year 1969–70, *Proposed Accreditation Standards for Florida Schools* was used on a pilot basis throughout the State. As a part of the pretesting, schools were requested to provide the department of education with their reaction to the standards, to become a basis for further revision to be submitted to the State board of education in February 1971. Approval by the board of education is tantamount to law, and the standards will become effective in September 1971.
- School library resources in *Puerto Rico* have been improved as a result of title II efforts but are still far below 1960 ALA standards. The school library program and the audiovisual program personnel have worked in close coordination with directors of academic and vocational programs and with curriculum technicians and subject supervisors in establishing standards for the selection of textbooks and school library resources by means of interviews, meetings and discussion groups.
- The *West Virginia* State Department of Education was seeking to adapt the national *Standards for School Media Programs* to local conditions. Progress was noted during the existence of title II but there was such a critical shortage of materials prior to the enactment of the legislation that the State had not yet reached minimum standards.
- The new *Kentucky* State standards which were to be revised by fiscal year 1971 would also be in line with the new national *Standards for School Media Programs*. In the area of printed materials the State was close to meeting the present Kentucky standards (10 books per child) but audiovisuals were still limited.
- The library media center section of the *Stand-*

*ards for Public Schools of Georgia* was revised during fiscal year 1970. A brochure, *The Media Centered Library*, was distributed throughout the State, highlighting the national standards and introducing them as goals for Georgia schools. At that time, 1,414 of Georgia's 1,876 schools reported that audiovisual materials are a part of the library media center resources.

- The majority of schools in *Tennessee* are meeting minimum standards for library books. Many schools have developed this phase far beyond the minimum standard. Requirements for audiovisuals are of necessity not so specific as the book requirements, but this has been improved to a great extent and many systems are approaching adequacy.
- The *District of Columbia* reported that while quantitative State standards had not yet been met, qualitatively the improvement was marked. Extensive weeding was possible since funds were available for newer materials, and much had been done. While this reduced the growth rate, it was insuring more useful and usable collections.
- The *California* Association of School Librarians and Audio-Visual Education Association Council reached the final revision stage of their new joint standards, which, if accepted by both organizations, would become effective in 1971. If approved by the State department of education these new standards would become recognized as official standards for school media centers in California. The substantial progress which had been made toward meeting the 1960 ALA standards slowed down in fiscal year 1970 as school districts experienced financial problems beyond anything recently known.
- The standards now being used in *Guam*, *Aids for School Library Development—1966*, were being revised, using the 1969 ALA–DAVI *Standards for School Media Programs* for the development of those which would fit the situation and needs of Guam. About half of the school libraries had met phase IV of the current standards, one-fourth were on phase III, and the remainder had attained phase V. Because of changes in school enrollment, two schools were in phase II.
- *Hawaii* also revised its school library standards and published them under the title *Standards for School Media Programs: Guidelines for Schools in Hawaii*. They gave recognition to the need for all types of school library resources in the instructional program. In the previous fiscal year, schools had been given an opportunity to add more nonprint resources (such as filmstrips, microfilms, transparencies, and disc and tape recordings) to their collections to offset the greater proportion of print materials already on hand.
- *Washington's Learning Resources Center: Standards for Integrating School Library and Media Services*, published in 1968, was reprinted because of great demand from the field. The State Standards Implementation Committee was in the process of revising packets it had developed for standards implementation, and distributed to administrators and used in inservice meetings. As the Committee worked toward revision it expected to place emphasis on qualitative, rather than quantitative, standards. For the first time, the elementary schools achieved the minimum standard of 10 books per child, an increase of 24.1 percent from 1965–70. Although standards for all types of audiovisual materials in schools had not yet been met, the percentage of increase from 1965–70 was significant:

| Type of material | Percentage of increase |
|---|---|
| Films | 2490.5 |
| Filmstrips | 453.2 |
| Tape and disc recordings | 40.3 |
| Slides and transparencies | 134.4 |
| Programed materials | 152.1 |
| Maps, globes, charts and other | 31.5 |

Despite an upgrading in State levels and a utilization of the AASL–DAVI *Standards*, most States reported that less than half the school districts had 10 or more books per child. *Ohio* indicated that in 1969 29.89 percent of the school districts averaged 10 or more books per child as compared to 24.9 percent in 1968; in 1969 the median number was 8.45 volumes per child as compared to the 1967 median of 6.97. *Michigan* estimated 7 or 8 per child, or 10 per child in 50 percent of the buildings, but added that extensive weeding is needed in all districts. *Wisconsin* expected a survey, begun in October 1970, to show that more than 55 percent of the centralized elementary, junior, and senior high school libraries meet or exceed State standards (6,000 books or 10 books per child).

**Selection of Materials**

State and local public agencies have ultimate responsibility for selection of materials, and criteria for selection have been established by every State department of education. They seek to insure that materials acquired under title II are of high quality, will contribute to the instructional programs, and meet the varying needs of pupils and teachers who use them.

To meet selection criteria in State plans, many

States have imposed a requirement on local districts to use approved selection lists, rather than rely, as formerly, on random trade lists and other indiscriminate sources. State education consultants have prepared bibliographies, arranged preview exhibits of media, and helped administrators in small schools with selection.

Selection emphasis by State and local agency personnel in fiscal 1970 has been on materials for use in reading programs, materials suited to the needs of educationally and culturally deprived pupils, materials for pupils with special needs, materials that treat all ethnic groups with fairness, and audiovisual materials. The following examples indicate this kind of activity:

- *Pennsylvania* continued to use title II funds to support three centers where teachers, media specialists, and school administrators can examine and evaluate materials. Professional consultant service is available, special bibliographies on timely subjects are issued, and workshops for school personnel are held regularly.
- *Rhode Island* issues a bimonthly newsletter recommending materials and including special bibliographies, for example, on environmental ecological education, children's periodicals, etc.
- *Colorado* encouraged the purchase of professional selection aids with title II funds and prepared special bibliographies of print and nonprint materials for use with migrant children.
- In *Texas,* each district renewed its total program, examined the areas of greatest need, and determined priorities. As a result, districts have emphasized instructional programs for migrant students, for the other educationally disadvantaged, for handicapped students, and programs which help develop language skills for use particularly among children with an inadequate command of English.
- Inservice programs are conducted in *West Virginia* for county teachers and other personnel upon invitation of a county superintendent, Federal programs coordinator, a school building principal, PTA president, or other authorized person. The mobile media laboratory is often utilized in the conduct of these programs, which range from lecture-demonstrations on selection and utilization to production of resources by teachers. Provision of selection tools and a requirement that all orders be approved by consultants in the State department of education have resulted in improved selection.
- Local personnel in *Georgia* have been encouraged and assisted in selecting, acquiring, and making available for use materials suitable for all groups and individuals represented in their pupil populations. Emphasis had been placed on underachievers, kindergarten pupils, and culturally deprived children.
- The quality of available materials in *Florida* has imposed a need for critical evaluation in order that students and teachers be provided those materials which meet their needs. Increased awareness of the need for an abundance of a wide variety of materials and increased interest on the part of administrators, teachers, and media specialists has made those responsible for purchasing materials show more selectivity in their choices.
- In *Alabama,* the insistence upon the use of selection aids was an invaluable contribution to the improvement of the quality of materials acquired along with encouragement for firsthand examination of materials for evaluation before purchase. Materials for children and teachers with special needs were given top priority.
- In *Puerto Rico,* materials bought are of great variety and high quality, with the assistance of personnel of the regular program of instruction. Materials are now bought only if they are channeled through the textbooks division, the library school program, or the audiovisual program. Meetings were held to orient private school personnel in the requisition of materials. In responding to private school requests for textbooks, emphasis was placed on basic mathematics and science.

Although for the most part, selection of print and nonprint materials under title II for children and teachers with special needs is a part of general selection, some States do pay particular heed to special situations.

- *North Dakota* chose to award a flat sum above the basic allocation for suitable materials to schools operating a special education program.
- Of the *Michigan* title II funds, 39 percent were allocated to districts with high concentrations of deprived children who may or may not have a physical or mental handicap.
- In the *District of Columbia* orientation program for new librarians, the purposes and possibilities of title II are explained and librarians are encouraged to call on the department specialists for assistance and consultation. Approved selection tools must be used by the librarians in making requests for materials. In this fiscal year, title II funds were used in special areas. Those elementary schools having a concentration of children from Spanish-speaking homes received collections of books written in Spanish-English or having a background of Spanish culture and heritage. (Children attending these schools are taught part time in

Spanish.) In the junior and senior high schools, in cooperation with the Social Studies Department, books with appeal for teenage students were selected to improve reading skills and broaden understanding in this area.

- *Alaska* reported that school library books purchased under title II were often chosen to fit into special programs developed under other titles. This is particularly true for books of special interest to students with reading problems or to culturally different children. Stress in some schools was placed on books about Alaska natives in order to improve the self-image among such children.
- The *Bureau of Indian Affairs* also has focused attention upon acquiring materials which have cultural relevance for the children in its schools.
- The quality of materials acquired for the use of children and teachers in the *Trust Territory of the Pacific Islands* is being constantly improved as a result of numerous workshops held by department of education personnel. The major objective of the workshops was to do just that. Title II made it possible to acquire much of the material selected and recommended in the workshops.
- School districts in *Washington* are required to choose materials to be acquired with title II funds from an extensive State-prepared bibliography of bibliographies. If materials were not selected from this list, districts were asked to list the items so that suitability and quality could be evaluated. The State agency has disseminated information on a monthly televised book review program, a cooperative effort of the Seattle Public Library, an educational television station, and participating school districts.
- Consultative assistance, bibliographies, exhibits and demonstrations, review of invoices, and regulations have directly or indirectly affected selection. Yet *Nebraska* indicated "that the qualified professional media specialist" is the real force behind quality selection.

**Effect on Curriculum and Teaching Methods**

Reports from title II program administrators, supervisors of instruction, and media specialists provide evidence that resources acquired under title II have effected desirable changes in curriculum and instruction. The additional books, audiovisuals, and other materials available to children and teachers create improved learning situations. A multisensory approach proves more stimulating than the timeworn lecture and recitation methods, and provides reinforcement for retention of learning.

By way of example:

- In *Tennessee*, title II funds have contributed to improvement of instruction by making available various types of material to assist children of differing abilities. Since learning is an individual and private thing, the report notes, the appeal of one medium over another varies from student to student.
- As more resources become available in *Georgia*, teachers have moved to the use of many media, relying less on traditional textbooks. To be relevant, the Georgia report states, materials supporting a viable curriculum of instruction must be used in an environment which provides for innovation, modification, and reorientation. Through the stimulus of title II funds, budgeting in the local systems reflects this pattern of operation. The richness and variety of instructional materials made available through title II are enhancing chances of success and achievements by students in the learning process.
- While there have been no local surveys in the *District of Columbia* to gauge the impact of title II, increased flow of materials is giving teachers much wider latitude in subject matter, for both themselves and their students.
- Local education agencies in *West Virginia* have used title II funds to support and supplement facets of the State comprehensive educational program. Under the influence of instructional materials acquisition, some local agencies have initiated media projects under the program.
- In *Kentucky*, teachers have been assisted in selecting and utilizing instructional materials supplied by title II to support special programs such as those for the handicapped, for children in both rural and inner city areas, and for vocational education. Particular attention was given to the field of early childhood education.
- Title II funds in *Alaska* have provided the larger collection of supplementary materials required to support an inquiry method of instruction. Schools have purchased books suitable for these purposes on all reading and concept comprehension levels.
- *Delaware* reported that 75 percent of the evaluative reports from local school districts indicated that materials acquired under title II had been used for new approaches to learning. Of Delaware school districts, 38 percent reported the use of materials to supported individualized instruction.
- A representative program in the use of audiovisual materials is Project Space Science, Middletown, *Rhode Island*, High School. The goal of this project—to teach certain specifics of astronomy—is accomplished by use of special materials and equipment. Capabilities of au-

diovisual resources in teaching science were demonstrated for the schools of the State.

- The foreign-language consultant in *Alabama* submitted the following evaluation:

  Title II has increased and improved the instructional resources in the elementary and secondary foreign-language area by a) increased number and use of graded readers in the target language(s) for secondary school students, and increased number and use of target-culture-oriented picture books for elementary school pupils; (b) increased number and use of books written in English about the culture (the everyday life and the accomplishments) of the people whose language the students are studying; (c) increased number and use of visual materials and audiovisual materials for classroom and media center; (d) increased number and use of reference materials for the teacher and student (e) greater cooperation between the classroom teachers of foreign languages and the school media specialist in the local school and school system in the selection of foreign-language materials and in the greater use of these materials by students and teachers; and (f) a greater use of foreign-language materials by other subject-area classroom teachers, such as social studies teachers, through the coordination efforts of school media specialists, teachers of foreign languages, and other involved classroom teachers. This evidence has been revealed through student achievement and teacher improvement in at least 25 percent of the school foreign-language programs observed.

  The use of materials provided under title II, as shown by the following examples, has contributed to the State program for the improvement of instruction in the elementary and secondary foreign-language area:

  Deeper understanding on the part of the students of Spanish of certain Latin American countries' culture as a result of projects of which certain materials were provided by title II funds—Barbour County Public Schools and Selma City Public Schools, Ala.; greater appreciation of the French language and its relevance in today's world on the part of elementary school pupils as a result of the availability and use of French picture books from the elementary school library—Butler County, Ala.; improved inservice education for certain teachers of foreign languages because of use of reference materials provided by title II funds.

  Enrichment materials in the target languages and in English regarding the culture of the target languages, and printed and audiovisual materials, are still needed.

- In *Puerto Rico*, materials such as transparencies, art prints and paperbacks are now being supplied to some extent to schools. Cassette recordings in Spanish for the mathematics program have been introduced in local schools for the first time. Fifty new school libraries—36 elementary and 14 secondary—were established. Additional schools participated for the first time in the use of library materials. Wider and better selection of textbooks was made; more textbooks were available, making it possible for teachers to give better care to students with different levels of achievement.

  In nonprint media, 459 16mm. films, 13,439 filmstrips, 4,333 recordings, 6,967 slides and transparencies, and 1,361 maps and charts were purchased to enrich various curriculum areas. In addition, students were able to use reading as a means of recreation because of the great number of books available for loan in the new libraries established; teachers were able to make the daily lessons more realistic and meaningful through the use of a variety of audiovisual materials; they were able to assign followup activities requiring the use of reference materials available in the school libraries; an individualized program for the teaching of mathematics at the elementary level was organized; the individualization of instruction has been emphasized at all levels. Reinforcement in the curriculum of a science program for third- and fourth-grade students in the rural area was possible through the availability of audiovisual materials. The organization of a health education course for the secondary schools was enriched with a variety of audiovisual materials.

- *Florida* has for many years had a unified school media program which encompassed a wide range of materials. Title II has strengthened this program. Materials collections which formerly were housed in separate areas have been more carefully inventoried and made available to more students and teachers. The necessary accountability imposed by the use of Federal moneys has been extended to those materials introduced into school for the first time under the program made it possible to provide many different approaches to learning.

  Primarily because the print collection in the majority of schools was already established and because new formats were more readily available, media specialists were eager to add transparencies, art prints, microforms and other media to their collections. Awareness of the multiplicity of available materials and of the need for a variety of formats to meet individual needs of students mandated the introduction of many media. Funds provided through title II made it possible.

- Under title II, schools in *Guam* have acquired

a variety of books and audiovisual materials so that teachers no longer have to depend on the textbooks and are better able to implement the independent inquiry technique in learning. Two elementary schools have set up listening posts for the use of the children. One of these has filmstrip projectors and cassette players which the children are allowed to check out with the materials to use overnight.

- In *Hawaii*, also, the effects of title II are noted in the provision of increased opportunities for individualized learning. School libraries that were book-oriented could not, before title II, support this approach. The audiovisual materials introduced into schools for the first time under the program made it possible to provide many different approaches to learning.
- *Nevada* reported that title II has given impetus in the State to the expansion of collections of materials better suited to the instructional program, and provision of materials for continuous progress, self-paced instruction, and a multimedia approach.
- Many local school districts in *Alabama* have hired clerks or aides through their own budgets so that professional librarians can spend more time with teachers and students. Many teachers have discarded textbooks, and students are encouraged to do independent study and creative research.

  Records show that students are checking out more materials and have a wider range of reading and learning interests than was the case 5 years ago.
- Evidences of improved instruction in the schools of Alabama: teachers guide individual students more realistically to use varied materials with which they can succeed and continue to work at their highest potential; classrooms have become workstudy centers; faculty groups study uses of materials to facilitate better communication, cooperative problem solving, independent practice in skills, and creative experimentation.

There can be no doubt that though most school districts had both print and nonprint available in varying degrees, title II funds were being used to upgrade, expand, and in some cases initiate nonprint collections. State plans have largely focused on unified media programs. State guidelines have introduced some local administrators to the unified media idea, and State personnel have assisted school districts in developing or improving media programs.

- In fiscal year 1970, eight educational service units in *Nebraska* applied for title II funds on behalf of 601 independent school districts to purchase 16mm. films, a medium beyond the purchase possibility of many small school districts.
- In *Ohio* schools, tapes, 8mm. films and microform are appearing for the first time on purchase orders for those schools meeting State standards for books.
- Everett High School, Lansing, *Michigan*, was quoted in the State report:

  > Teachers now know that the library is able to provide materials in depth on various subjects, and they don't hesitate to send classes small groups, or individuals to the library for searching. There are several classes meeting on a flexible schedule where the students are not limited to textbooks and tedious lectures. These students spend a great deal of their free time in the library and their search for subject matter leads them to books, periodicals, records, tapes, filmstrips, films, etc. The library has become a one-step place for planning and obtaining information.

- The Bunker School, Muskegon, *Michigan*, is making its own 8mm. film loops, using resource materials available in their school through title II.
- Because of limited funds, *Ohio* reported that individual school districts distributed title II funds on a per pupil basis—thus providing little opportunity to concentrate on any one subject area or innovative instructional technique.
- *North Dakota* indicated that late and irregular funding were deterrents to both curriculum and library planning.
- A bill passed by the *California* State Legislature in 1968 gave school districts considerable leeway in providing curricular offerings. This new freedom made it possible to use a broad range of printed and audiovisual materials to implement individualized instruction, and resulted in a greater variety of courses offered.

  One high school in the Santa Barbara City High School district now offers 58 elective courses in its social studies department; a like number of electives in its English department is planned for the coming year. Such diversification of course content has been made possible only because of the abundance of material provided through a title II special-purpose grant. Developments in other schools have been less spectacular because there have not been enough funds to provide the quantities of materials required, but evidence is widespread that media make a difference in the implementation of an instructional program devised to meet the needs of individual students.
- *Washington* credits title II, and the 101 special-purpose grants made in the last 3 years

in particular, with being instrumental in providing the major portion of materials for many innovative curricular and instructional techniques. Learning packages have been developed in many districts throughout the State in line with concept development and individualized instruction.

**Special-Purpose Grants**

State plans for title II are required to set forth criteria for determining relative need for school library materials, textbooks and other instructional materials. States may make, out of their allotments, special-purpose grants to meet the needs of children and teachers in special or exemplary instructional programs.

Not all States made special-purpose grants. From 17 in fiscal year 1966, the number rose to 30 States in fiscal 1968, funding some 950 special projects. Reduction in budget since then has caused a curtailment in this aspect of the title II program. Only some 15 States used a severely restricted portion of their funds to provide for a smaller number of projects. Some States were forced to cut back on publications describing outcomes of the special-grant program, a regrettable loss of dissemination.

- *New Hampshire* nevertheless issued a publication in fiscal year 1970 describing the effects of the 22 special-purpose grants funded under title II in the 4 previous years, and noted a number of ways in which the projects contributed to the improvement of educational quality and opportunity. These included promotion of unified media services; increased interest in the use of media; improved educational planning for media programs; and support of the use of innovative materials, curriculums, and teaching techniques.
- *Arkansas* amended its State plan to provide for special-purpose grants to support the Right To Read effort. The central theme emphasized in articles and oral communication has been that fulfillment of a child's right to read is determined by the availability of books, magazines, newspapers, and other materials.
- *North Dakota* continued to make a special grant to each school that has special education classes.
- For the first time, the *Bureau of Indian Affairs* used a special-project approach in granting title II funds. Five projects were approved, designed to improve the accessibility to Indian children in isolated areas of a greater number of more appropriate materials. Three are in Arizona, one in Alaska, and the fifth in South Dakota. Selection of these locations was based not only on the quality of the project application, but also on the fact that they are in the three Bureau areas being given highest priority consideration because of the critical educational needs there: the Navajo, Juneau, and Aberdeen areas.
- The *Washington* report described some of the most successful special-purpose title II grant projects:

  HOP—Home Organized Power—a program which involves both the home and the school in an effort to enrich the education of children beginning school; The Last Two Frontiers: space and oceanography—a program concerned with preparing today's youth for the changes they will face in the future (all courses in the program focus attention on the status of man as projected to the year 2000); Directed Study and Guidance—a program designed to provide students with information on topics they have indicated are of concern to them (school politics and activities, student government, grooming and posture, dating, courtesy, personal values, honesty, etc.); Communications Unlimited—a program designed to develop competent language skills in the children of a multiethnic agricultural area; Project Film Talk—using silent and minimal story-line films to develop greater verbal articulation in nonverbal pupils; PIC—Processes in Culture—a team-teaching project in seventh-grade social studies and language arts with emphasis on countries of the Pacific Rim; Environmental Materials Center—a project stressing the ecological relationship of man and his environment and the importance of and need for an awareness of esthetics in man's psychological relationship to his environment (emphasis is on local environment, using nonprint materials); Resources for Learning—a project providing multimedia materials for the curriculum and for enrichment (students are encouraged to check out materials and equipment for home use).
- A token amount of $5,000 was given to each of five *Arizona* elementry schools to fill gaps in printed or audiovisual collections. Each of the schools agreed to open its doors to visitation. Selection of the schools was based on adequacy in staffing, program, facilities, or a combination of these so that they might be considered exemplary.
- *Oregon* added four schools to the 15 already receiving special-purpose title II grants for serving as demonstration schools, and *California* brought the total of its special-purpose title II grants up to 163 by funding 25 additional projects during fiscal year 1970.

- The *Nebraska* Title II Advisory Council's decision to suspend the special-grant program metmet with disappointment across the State. However, four of the eight exemplary centers previously funded continue to attract a sizable number of visitors. *Wisconsin*, on the other hand, chose to continue its special-project grants, but to direct these funds to elementary schools that would provide the facilities, personnel, and equipment for a central elementary media center. Twenty schools received grants, ranging from $3,000 to $24,000.

### Special Programs

Without recourse to special-purpose grants, States have been able to report on the benefits to special education provided by title II.

- In *Rhode Island*, title II has supported bilingual education in several communities where the resources of the media center were directed to specific pupils with linguistic problems.
- Title II grants were awarded to 13 schools in *Massachusetts* which serve pupils with physical and mental handicaps. These schools, dealing with children with serious learning problems, have acquired audiovisual and specially designed learning materials to meet the needs of their students.
- Title II's greatest contribution to special programs in *Georgia* has been in the research aid development area where the provision of materials makes possible the exploration of ideas relating to the effects of a variety of media on teacher techniques, attitudes of both students and teachers, and accomplishments of pupils of varying abilities and interests.
- Special attention was given in *Puerto Rico* in providing materials to school libraries established in the 35 districts considered the most culturally deprived areas. The curriculum directors of the regular program of instruction are also specially interested in the evaluation and selection of audiovisual materials for the achievement of the specific goals of instruction in these particular areas.

  The audiovisual program organized an activity in which each program (handicapped, preschool, bilingual, etc.) appoints a committee to evaluate audiovisual materials to select the best suitable for their special instructional needs. The purchase of materials is based on this evaluation and selection.
- *Florida* educators are committed to providing educational programs which meet the needs of all students. Within the past few years, emphasis has been placed on programs for educationally deprived, handicapped, preschool children and children in bilingual programs. The legislature has mandated programs in several of these areas. Being aware of the programs as they develop, media specialists throughout the States have been alert to acquire materials in these areas. Also, professional collections have been established and used for inservice training programs.

## EVALUATION

Title II supervisory staff in State departments of education make periodic assessments of the management of the title II program, as well as the impact of the program on elementary and secondary school teaching and learning. Data thus obtained are used to evaluate administrative and program practices and determine what changes may be needed.

- As an adjunct to an earlier study of media centers in its public schools, *Wisconsin* published a summary of the instructional materials program in 720 private schools in the State. It disclosed that three private high schools and 160 elementary schools had established centralized media centers since 1965. Effective use of materials was hampered by lack of qualified media personnel (even half-time) in 27 percent of the secondary and 94 percent of the elementary schools.
- Evaluation of the title II program in *Arkansas* shows a definite impact upon library resources available to all students in the State: an increase in the number of books per pupil, particularly in the elementary schools, and availability of nonbook materials where none were to be had before.
- In *Louisiana* a survey under title II of library needs was conducted by Northwestern State University. An instrument for evaluation of the program is being developed, based on the survey results.
- In *Alabama* each year a statewide survey shows the status of sources and facilities in each school. This survey gives accurate data with regard to provision of funds from all sources, and is used as the basis for projecting need to various State and Federal agencies. Of the 1,603 schools in the State only 166 have no centralized library facilities. The overall average number of books available is 5.5 per pupil, a growth of less than one per elementary child since 1965.
- Of 52 LEA's reporting in *Florida* on the effect of title II, 47 reported great impact, the greatest being in the improvement of quality and quantity of media collections. The next highest result reported was that children have been stimulated to read more (based on test scores and utilization records).

- An evaluation of the use of audiovisual materials by teachers and students in *Puerto Rico* was conducted during the month of April; it revealed extensive increase in the use of films, recordings, tapes, and filmstrips for the individualization of instruction.

  School libraries personnel kept circulation records and gathered data which reveal an increase in the use of instructional materials by teachers and students.

  Supervisors from the textbooks division at the central office visited classrooms to verify the distribution, location, and use of textbooks. Recommendations were given to school directors and teachers based on the results of these visits.

- The *Kentucky* Department of Education published results of a survey of public school library funds between 1965 (title II's year of enactment) and 1970, and the 1970 status:

*Public school library expenditures (books and printed material)*

| Expenditures by local boards | 1965 | 1970 |
|---|---|---|
| Elem. school libraries | $540,502 | $708,866 |
| Junior high school libraries | 67,090 | 355,496 |
| High school libraries | 259,806 | 794,422 |
| | 99,870 | 84,411 |
| Total | 967,268 | 1,943,195 |

*Per pupil library appropriation*[1]

| | Elementary | High school |
|---|---|---|
| 1965 | $1.37 | $1.79 |
| 1966 | 1.50 | 2.04 |
| 1967 | 1.62 | 2.21 |
| 1968 | 1.65 | 2.37 |
| 1969 | 2.13 | 2.82 |
| 1970 | [2]3.44 | [2]4.63 |

[1] These figures represent local and Federal funds; grade levels 1–8, elementary schools and 9–12, high schools.
[2] Partial data due to incomplete reports of several school districts.

*Combined local and Federal funds, 1970*

| | Pupils | Local and Federal funds | Per pupil expenditure |
|---|---|---|---|
| Elementary | 357,894 | $1,231,550 | $3.44 |
| Junior high school | 58,435 | 444,683 | 7.61 |
| High school | 233,501 | 1,082,197 | 4.63 |
| 12th grade | 47,110 | 179,950 | 3.82 |

*Average library collections for all schools reporting, 1965–70*

| | |
|---|---|
| 1965 | 3,837 |
| 1966 | 4,567 |
| 1967 | 4,350 |
| 1968 | 4,664 |
| 1969 | 5,226 |
| 1970 | 6,931 |

Source: Kentucky State Department of Education.

- A special needs grant survey conducted in *Washington* State during the past year revealed the following frequently identified needs for materials:

  Indepth resources for specified curriculum areas;
  Materials for individualization of instruction;
  Increased opportunity for students to develop learning skills;
  Increase in materials in all subject areas of the library;
  Materials for independent study;
  Change from print-oriented library to a learning resource center.

  During the year, 11 school district surveys were conducted by the division of curriculum and instruction which evaluated media center programs in all schools of the district. The third revision of the ESEA title III *Assessment of Needs for Students in Washington State* will be used as a basis for planning of the State title II programs next year.

- A statistical study, *Numbers of Pupils, Library Rooms, and Librarians Reported by 686 Cali-*

*State totals per pupil library report, 1970*

| | Pupils | Local funds | Per pupil | Federal funds | Per pupil | Books | Per pupil |
|---|---|---|---|---|---|---|---|
| Elementary | 357,894 | $708,866 | $1.98 | $522,664 | $1.46 | 3,122,987 | 8.7 |
| Junior high school | 58,435 | 355,496 | 5.74 | 89,187 | 1.52 | 485,121 | 8.3 |
| High school | 233,501 | 794,422 | 3.40 | 287,775 | 1.25 | 2,221,117 | 9.5 |
| 12th grade | 47,110 | 84,411 | 1.79 | 95,537 | 2.03 | 609,672 | 12.9 |

*fornia School Districts and County Superintendents for the 1967–68 School Year* was compiled from the *California* State Department of Education title II basic grant applications for 1968–69.

*An Evaluative Report on the Multimedia Services Project: Sobrante Park School* was prepared by the division of instructional media and research department of the Oakland, Calif., public schools, and published in February 1970. The teacher, student, and parent evaluations judged the media center to be successful, particularly in the improvement of reading, motivation of students to academic effort, and helping children to become self-directed in their learning experiences. The individual case studies show that it is possible for change to occur in students with specific problems, low academic achievement, emotional disturbance, lack of specific learning skills, and the like.

Valley View School in the Coachella, Calif., school district kept circulation records and submitted them with the analysis of teacher evaluation of the library program and additional teacher comments. On a scale of 1–5, with 5 equivalent to "very much," teachers responded to all separate questions on what the school library had done for them and their classrooms. Questions covered the range of increase in changes in pupil skills and comprehension, interest, attitudes, use of the library, and the effectiveness of the library in supporting the teacher in curriculum development and use of various teaching techniques. The lowest composite response score was 4.

**Reaction to the Program**

Objective evaluation, conducted in a structured fashion, is reinforced by subjective reaction, less formally acquired. Observations and comments of teachers, school media specialists, school administrators, parents, and others provide useful insights into the value and direction of title II. Some examples, as reported by the State education agencies:

- *New Hampshire* wrote that while no statistical evidence is as yet available, the frequency with which title II is mentioned and the gratitude expressed by teachers and parents of children in small elementary schools and struggling parochial schools indicate the important role of title II in providing the variety of materials essential for individualizing instruction. A more objective evaluation is planned for fiscal year 1971.
- *Delaware* reports that the best evidence of support for the program is the extent to which it has stimulated local effort for materials. One district showed an increase from 75 cents to $14.84 per pupil; about 25 percent of the schools report increases ranging up to 50 percent. More than half the schools reported the strengthening of book and audiovisual materials and more than a fourth noted improvements in accessibility of materials. Title II funds were used to establish new media centers in 11 percent of schools; materials in 13 specific subject areas were upgraded. About 5 percent of Delaware public schools reported establishment of professional collections for teachers and 10 percent reported expansion of existing collections.
- With more than 98 percent of the pupils in *Minnesota* participating, the State department of education feels the time and effort devoted to presenting and explaining the program to local school boards and authorities have paid off in acceptance. Moreover, the maintenance of effort regulation has encouraged local districts to provide additional funds for instructional media, as well as funds for qualified personnel. In 1970 the average per pupil expenditure of local funds in Minnesota puplic schools was $5.80 as compared to $3.68 in 1965.
- *North Dakota* indicated wide acceptance of the program, but dissatisfaction with the late funding as well as the reduced allotments.
- *Arkansas* wrote that title II has had great impact on the improvement of educational opportunities in the State. Many children and teachers now have access to more high-quality materials and to a wider assortment of materials. Even in areas where the facilities are considered far from adequate, collections have been remarkably enriched.
- *Florida* local records show that in most instances title II materials are receiving wide usage. Measurements of the effectiveness of usage of the specific materials obtained through title II are difficult to find, but enough evidence exists pointing toward the general improvement of instruction through the employment of special materials that it is reasonable to make the assumption that title II materials are making a positive contribution.

  As the State has stressed such programs as exploratory science and linguistic approach to language arts, much supplementary materials support is observable. Without title II support these materials would have been very limited.

  Title II has had an impact by increasing and improving instructional resources in elementary and secondary subject areas throughout the State of Florida. Library materials, films, and art prints are a part of school arts and humanities programs and resource centers that would not be available without these funds.

- *Kentucky* State consultants in curriculum areas note an increase in both materials in resource areas and the use of these materials by children and teachers. The library has become the center for all types of materials, organized and made available for students and teachers. In planning new facilities, media centers are now included to house a unified media program. All children in Kentucky have had experience in using title II materials.

  Title II funds continue to increase the book-to-student ratio in all public and nonpublic schools. Schools continue to replace old and obsolete books with books of contemporary content. Because of this many schools now have a wide variety and quantity of materials, and newer approaches to teaching continue to become more common. One of the greatest benefits that title II funds have created in Kentucky is the awareness of the need for improved library services and the help we are getting in developing new programs supported by more effective library services.

- Although the philosophy of a total instructional materials program was developed in *Tennessee* prior to the title II program, this program has made a tremendous impact in implementing the development of the unified media program since more schools were able to secure the materials needed. The overall assessment of the title II program in improving the educational opportunities for children and teachers may be summed up in the word "excellent." The additional funds available through title II allow school systems to provide more variety, quantity, and quality to the media program than would otherwise be possible. This in turn enhances the educational opportunities for children and teachers in the schools. The basis for this assessment lies in the reports given by both local school system personnel and by State department of education personnel visiting in schools. The program has been well received and easily understood by all concerned since it provides a very tangible much-needed benefit to schools. There was great concern among civic groups, PTA's, and parents, as well as school personnel when it appeared that these funds would no longer be available.

- Since schools in the *District of Columbia* serving children where materials are most needed have priority in the allocation of funds, teachers, children, and parents have become aware of title II. Collections have grown large enough to make the teaching of library skills meaningful; children are able to select and use materials on their own initiative, as well as with the assistance of teachers and librarians, in order to plan and complete assignments and individual projects; parents and other community volunteers are being used in libraries because of the addition of materials and their increased use.

  Filmstrips, recordings, and transparencies have been placed in individual schools as a direct result of title II funds. Prior to this, all audiovisuals had been placed in one central depository. In summary:

  > Our school libraries are moving from the concept of books only into the combined print and nonprint media fields. While the demand for this development was largely promoted in the library literature, AASL standards, etc., it has been title II funds that have made it a reality.

- In *West Virginia*, title II has provided teachers and students with materials which would not otherwise be available. It has increased teacher awareness of instructional materials and benefits to be gained by their use. Evidence of this is an increase in the number of media centers and the development of media programs during the past 5 years. Public reaction includes urgent requests for increased funding of the program.

- Assessments of title II in *Georgia* have been random and subjective. The State average of library books per pupil was increased by one. There are presently 9.33 books per pupil in school libraries: 38 percent of public schools meet the State standards of 10 books per pupil. Most educators consider title II to be of great benefit to both teachers and pupils. Learning materials have been made available where none existed and where none would exist today had it not been for title II. It is thought by many to be the best Federal financial assistance program available to aid teachers in teaching and pupils in learning.

  > The acquisition of library resource materials through the title II program has played a vital role in improving educational opportunities for pupils and teachers in Georgia. Title II has made major contributions to collections in 133 new libraries since its beginning in Georgia. Title II has enabled rapidly growing systems to meet standards of the State. The acquisition of library resources with title II funds has made teaching more rewarding and learning more meaningful. These assessments are based on data on file and visits to schools.

  The reaction to the title II program in Georgia is typified by this statement from a library coordinator for several private schools:

  > While the procurement of interesting library books and audiovisual media does enhance the teaching-learning experience of our children, who can ever estimate

the incalculable joy we have been able to extend to our children by opening up new worlds of vision and insight to them? Perhaps it is not so important to know as to feel. Once the emotions have been aroused with a sense of the beautiful, the excitement of the new and unknown, a feeling of sympathy, pity, admiration, or love is followed by the wish for knowledge. It seems more important to pave the way for a child to want to know than to put him on a diet of facts he is not ready to assimilate.

- Selected excerpts from *Washington* State's report on reactions to the title II program:

  The 10 years of effort in developing new social studies programs through federally funded curriculum projects are beginning to have a significant impact in the State. The major contribution has been to bring about a new awareness of teachers of how much more effective literature, drama, good films are in working with students born in the Age of Aquarius. Without title II most of our new programs would have little chance of getting off the ground. We have a sizeable number of secondary schools that now enjoy resource centers with large and excellent collections of paperbacks that are being used extensively in social studies programs.

  Materials bought with title II funds have contributed to the improvement of instruction through: improvement of language arts and prevocational skills of elementary and secondary school pupils; development of the language ability of American Indians, Mexican-Americans, and migrants, influencing the values, achievement, and aspirations of the children participating; development of collections of materials for classroom use, especially suited for children from different cultural backgrounds.

  Title II funded materials have been a major factor in encouraging some districts to move into the real environment where environmental problems exist. Dissemination of the value of these curricular pursuits in local districts to other districts has encouraged more people to expand the curriculum into the human and natural arenas beyond the schoolhouse.

- With the advent of the title II program in *California,* audiovisual materials were made available for the first time to hundreds of California school districts. The eagerness of the children and teachers for more audiovisual materials testifies to their effectiveness as an adjunct to the instructional program.
- In *Guam,* new and up-to-date materials as well as those of better quality have been acquired with title II funds, particularly in such areas as science and social studies. Moreover, a more varied collection of materials has been made available for the use of children and teachers. Some of the kinds are microfilm, reference books (in some cases specialized reference tools), art prints, and reproductions. The school program consultant for library services reported having noted in her visits to school libraries a marked increase in the enthusiasm with which the children and teachers use the resources acquired under title II. She has observed children crowding around a card catalog and the shelves hunting for books they want. Some go to listening posts to listen to recordings; others reach for the filmstrip viewer or the single-concept film projector.
- Perhaps the *Missouri* statement on overall assessment of impact reflects what many of the States indicated:

  The title II program has alerted many schools to the great need and purpose of the library in a total instructional program. Through required school library evaluation and the cooperative planning of title II projects, schools have generally involved the total instructional staff of each district. Schools have attempted to provide better housing for their libraries and are realizing the necessity of an adequate library staff. It appears that the impact of title II in improving educational opportunities for children and teachers in Missouri has been great in spite of the relatively limited funds provided. These observations are based on contacts with school superintendents, individually and in groups, in every section of the State, and upon on-site inspections and consultations involving principals, librarians, teachers, and other instructional staff.

- *Puerto Rico* reported that it is not possible to provide all the necessary textbooks with the limited State funds available. Title II made possible the acquisition of greatly needed textbooks that otherwise would not have been available for public and private schools. The acquisition of a variety of audiovisual materials under title II contributed to change the traditional lecture class method in favor of visual media which provide an enriched student learning experience. The provision of a wider variety of teaching tools through the library resources program made possible more individual and group instruction.

  A very positive reaction to the benefits of the title II program has been demonstrated by students, teachers, school directors, and subject specialists. They all recognize the educational

benefits provided by this financial aid. Parents the general public, and school personnel from public and private schools are conscious of the benefits of this program. This interest has involved all of them and as a result they demand more materials.

The increase and variety in supplemental materials in school libraries helped to strengthen the objective of improving English as a second language, as reported by librarians and teachers. Students elect to read books in English more often in their free-time activities. A wide variety of materials for service to students and teachers have been organized in remodeled libraries and audiovisual rooms. This has motivated the library and the audiovisual personnel to work within the same physical facilities.

- *Ohio* agreed that title II has provided many instructional resources, but much work is needed to help local school personnel use these materials. The following quote from the Ohio reports is indicative of a type of annual subjective evaluation:

  > The combination of more materials and a greater variety of media over the last three years has had a steadying influence on our school program. Specifically: (a) Students have learned how to collect and use multimedia in coordinated fashion at the high school level; (b) students have learned how to use the library, physically as well as academically, with a definite pattern of progression; (c) using the center (high school) or using the library (elementary) has increased in status both for students and faculty; (d) the clamor, by students and faculty, is for more materials; (e) the awakening of students, teachers, and administrators to the potential of our resources, methods of using them, trends for the future, use in creative as well as the more traditional methods, is heartening.

- The *Michigan* remedial reading program in elementary and secondary schools, the expanded prescriptive reading program, and the year-round and summer migrant program are areas in which title II materials provide recognizable support in new approaches toward improving instruction.

- The English consultant from *Nebraska* sums up the impact of the title II program in this way:

  > In the 1969–70 school year I was in more than 100 libraries, many of them in high schools with fewer than 500 students. Most of the libraries could be described as media centers, though many kinds of learning resources were still needed. In each case where I found one that was close to the quantitative and qualitative standards set up by the ALA and the accrediting agencies, the media specialist confirmed my guess that title II funds had been responsible for the upgrading of the center. Even where the library was strictly that, the librarian was happy to show me the books and magazines that the school could now make available because of title II funds. I kept remembering the paucity of materials reported by conscientious respondents to my library questionnaire, when I did a master's thesis in 1962. We have come a long way in our efforts to provide adequate learning resources in Nebraska schools, but we still have much to do.

## STATE AND LOCAL NEEDS

State and local reports for fiscal year 1970 have indicated an urgent need for increased funding of title II programs, both for instructional materials to supplement State and local effort and for State administrative and consultative assistance to the local education agencies.

### Instructional Materials

No report fails to credit title II with providing instructional materials to supplement those available through local resources. It would appear, in fact, that the advent of title II stimulated a greater need, and a greater awareness of the need, for additional materials to meet minimal—to say nothing of optimal—standards. Reports from State departments of education cited needs in nearly every subject area and grade level and for almost every type of material, particularly for high-interest, low-vocabulary reading and audiovisual materials.

- *Oregon* reported that materials of all kinds are needed to support curriculums which place new and greater emphasis on economics, political science, and local government, international relations, psychology, sex education, drug- and narcotics-abuse education, computer technology, oceanography, cultural heritage of minority groups, and moral and ethical values.
- *Massachusetts* reported increased needs for materials on current topics, e.g., ecology, minorities in society, and student militancy.
- Specific curricular needs in *Rhode Island* include materials for use in black studies, bilingual programs, reading, and for the study of such social problems as drug abuse and environmental/ecological education.
- In *New Hampshire*, the greatest need for ma-

terials is at the elementary level. The greatest gaps appear to be in the subject areas of art, the humanities, social studies, English, and reading.

- Needs for *Delaware* schools are greatest for audiovisual materials, materials on occupations, and low-vocabulary, high-interest materials.

- A continuing need for all types of audiovisual materials is reported by *Kentucky* for grades 1–12, and for print and nonprint materials in all subject areas. At the local level the greatest need is for elementary librarians and audiovisual specialists. Many elementary schools are still without the services of a qualified librarian.

- In *Oklahoma*, reading is the area of greatest need. The need for audiovisual materials to support all areas of instruction is acute.

- A strong emphasis in *Utah* is on individualized instruction; need exists in this area for all grades and in all subject areas.

- Instructional materials in *Louisiana* are needed in reading, language arts, and mathematics at the elementary and junior high levels. High-interest, low-vocabulary materials and those adaptable to the multisensory approach are needed in subject areas. The need for audiovisual materials in all subject areas and at all levels is crucial. The foreign-language supervisor indicated a need for instructional materials at the primary level, grades K–3. A continuing pressing need in Louisiana is for elementary school librarians, and inservice training for librarians presently employed.

- The elementary school children's need for quantities of attractive, factual, curriculum-oriented library resources on all reading and viewing levels in all subject areas ranks as the top need in *Michigan*. Its list of areas in which instructional materials are needed summarizes the specific concerns of other States:

  > (a) Bilingual materials at all grade levels (K-adult basic); (b) materials for individualized instruction; (c) meaningful lifelike simulation materials; (d) game simulation for secondary schools; (e) ethnic integrated materials at all levels; (f) world of work material for vocational guidance; (g) prevocational and vocational materials; (h) up-to-date materials about the crucial social and economic issues of today.

- *Wisconsin* cited reading as the subject field needing the greatest emphasis.

- In *West Virginia*, the greatest need is still for materials for the elementary schools. The Right-To-Read effort dictates that extensive funds be devoted to provision of materials which will motivate elementary children to want to read. But there must be provision for reading opportunity. There is also need to provide reading motivation for those 11th and 12th-graders whose formal education is nearly terminated and for whom "there is no tomorrow" in learning to read.

  There is also need for additional administrative funding to provide for field personnel to assist local school districts in planning, implementing, and evaluating programs. Personnel is desperately needed also at the county level to administer effective media programs, which would in turn expedite the plans to provide media services to all children throughout the State.

- The elementary area in the *District of Columbia* is still in greatest need since the elementary program is much newer than the secondary. The complete range of materials—print and nonprint—is needed in all schools for updating collections and inspiring children to use the resources to work on their own.

- Generally in *Tennessee* the need for nonprint materials is greater. There is a tremendous need for materials of all kinds and at all levels relating to current high-interest subjects such as drug abuse, ecology, and all social problems. The greatest need at the State level is to add to the present field staff additional personnel with training in both print and nonprint media. The present staff, despite commendable efforts, is finding it difficult to meet the requests for assistance from the local school systems. At the local level increased numbers of qualified personnel are needed to strengthen media programs. State funds are used both in the support of personnel and acquisition of materials for this program; however, a loss of Federal funds for acquisition of materials would seriously curtail the projected strengthening of the media program.

- In *Georgia*, there is a shortage of instructional materials in language development skills, especially in reading. This is at all grade levels and tends to become greater at each level of progression. New discoveries in science and changes in the world community make it necessary to keep current with these developments. Additional consultants at the State level are needed to give adequate supervision in the State.

- The area in which the greatest gaps exist in instructional materials for Indian and Eskimo children in *Bureau of Indian Affairs* schools is for those which have cultural relevance and are linguistically appropriate.

- The *Trust Territory of the Pacific Islands* also experiences difficulties in locating appropriate materials of all kinds for lower elementary

grades because commercially produced materials in English are not generally usable at these levels. That is why most of the acquisitions are for upper elementary and secondary levels where commercially produced materials can be used.

- Needs for materials of a number of groups of children in *Arizona* need to be studied carefully: Indians, Mexican-Americans, inner-city children, and those in rural areas who are in a sense deprived because of the very remoteness of their locale. Gifted children must also have some special consideration.
- *Alaska* schools still need many books and teaching materials, particularly for social studies—more on Alaska and on west coast history. Also required are additional materials on vocational planning or prevocational orientation. Alaskan students see only a few occupations practiced and cannot imagine others without vicariously learning about them.
- According to *Washington* State subject area supervisors, significant unmet needs exist in the following areas:

  Materials for Indian education, especially for the elementary level, which deal with Indians of the Pacific Northwest and reflect the modern-day Indian and his role in society; varied and quality materials for use at all levels on Mexican-Americans and orientals; vocational educational materials for elementary schools; health and drug-abuse education and high-interest low-vocabulary materials at all levels.

  Statewide materials for all levels are needed for individualized instruction, bilingual programs, environmental-ecological education, and intergroup-interpersonal-intercultural relations. There is also need for expanded use of new forms of media, especially for use by and with culturally and economically deprived children.
- The needs for materials in *Hawaii* also reflect to some extent a multiethnic population with a degree of isolation. Areas in which the materials are still most deficient are counseling and guidance and American problems at the secondary level; individualized instructional materials for all subject areas at the kindergarten through third-grade level; comparative social studies and language arts—reading, speaking, writing—at all grade levels; and world problems and understanding and current science developments at middle and upper grade levels.
- *California* reports a great need for additional audiovisual materials at all levels. Traditional printed materials will not meet the total needs of pupils with individual differences in methods of learning. Specifically, there continues to be a need for additional materials in the humanities and multiethnic areas of all grade levels, but particularly in secondary schools.
- Needs for materials in *Nevada* schools continue to be critical, particularly in view of changing staff organizations, instructional methods, and curriculum concepts. The needs being dictated by the Right To Read effort must be analyzed for application to the situation in Nevada, and statewide needs must be assessed for that program.
- In *Florida* greatest gaps in elementary instructional materials were, in order: language arts, social studies, science, reading, mathematics. On the secondary level the most frequently reported gaps were in social studies, science, language arts, fine arts and the humanities, vocational areas, reading, and social problems —in that order.

  There was still need in all fields for high-quality materials to interest students of low ability. The lack of high-quality audiovisual materials in the vocation-business areas was also pointed out as being a serious problem to districts attempting to upgrade their vocational curriculums.
- *Alabama's* most apparent need was for materials at the elementary level. Most secondary schools appeared to be able to meet State standards, in print materials at least, in fiscal year 1970. There is need for a State and several regional film libraries, since only 46 of the 128 systems have film collections.
- Needs in *Puerto Rico* include the expansion of library services to reach the goal of one library in each elementary and junior high school; improvement of library collections as to quantity, quality, and variety; provision of more textbooks to satisfy the needs of all students; and more audiovisual materials to enrich the curriculum in the following areas: social studies, Spanish, mathematics, science, and vocational education.

  The curriculum revision recently approved by the department will require the publication of 74 new textbooks for the elementary, junior, and senior high school levels in the Spanish program. The English program is under revision. These revisions will double the textbook need.

  In school library resources, need still exists at all levels and all subject areas. Periodicals are particularly needed. Audiovisuals in science, vocational education, and English are in great demand in grades 7–12; in social studies, Spanish, and mathematics in grades 1–12.

**Administration and Staff Needs**

Late and reduced funding worked hardships on

State and local education agencies that had begun to pick up momentum in their drive to improve their school media programs. Material acquisitions apart, there is still essential need for State administration and consultative services to local school districts if the program is to be efficient and effective.

- *Massachusetts* reported that shortage of staff has precluded visits to all but a few school systems; the growth of local programs makes close contact with State supervisors even more crucial to fulfill the leadership role and unify the efforts and aspirations of State educators. At present the State school media staff includes one professional for every 460,000 students, every 44,000 teachers, and 144 superintendents in the State.
- The State of *Alabama* does not allocate a teacher unit for the employment of librarians. Funds are desperately needed for personnel at the local elementary level and also for system-level library supervisors, of whom there are at present only 16. At the State level a supervisor of audiovisual service is badly needed to work with the present staff in the development of media centers and in the preparation of and instruction in the preparation of graphic materials.
- In *Florida*, the greatest local personnel need is for trained clerical workers, technical processing assistants, and library aides. Professional personnel seem to be available in sufficient number in all but the most rural counties of the State. Locals continue to report need for construction funds for new media facilities or for enlarging and remodeling presently inadequate ones.
- A full-time adequately trained consultant to develop awareness and utilization of instructional media of all types is a priority need in the *Nevada* State Department of Education.
- *Arizona* has been operating the title II and the State school library programs with a single professional. In order to help districts, especially those without supervisory personnel in school libraries, the State-level staff should be increased. With a new education building soon to be constructed, the prospects of having sufficient staff, professional and supportive, to administer a title II program adequately are much brighter. Regional meetings, single-theme workshops, onsite visitations, and conferences with school officials are necessary. Many local districts could benefit from regional centers which would relieve school unit professionals from processing of materials and other clerical chores. Paraprofessionals and clerks are needed by many districts. Although schools recognize that they are losing much of a professional's time on routine tasks, most have many higher priorities than the hiring of library clerks.
- The great need for additional school media personnel in *California* school districts is shown by the ratio of qualified and credentialed persons in the positions of school librarian or audiovisual coordinator—approximately one for every 2,500 students.
- All public schools in *Hawaii* have media centers with professional personnel. The greatest need now is to provide additional clerical help so that the professionals will be relieved of many clerical tasks that interfere with their work with the children and teachers in the educational program.
- The *Trust Territory of the Pacific Islands* pointed out in its report that with the passage of time, it is becoming more important to train and employ technicians in the districts who can service audiovisual equipment which, although not obtained under title II, is essential for use of materials which title II does provide. Similarly, the work of caring for and repairing film and books goes undone in too many cases. Not only personnel are lacking, but adequate facilities within which to work as well.
- As of January 11, 1971, the former 39 county school offices in the State of *Washington* were phased into the 14 intermediate school district offices by the legislature. It is hoped that there will be a Federal projects coordinator position in each intermediate school district office and that these offices will serve as a liaison between the field and the State. A qualified media specialist employed by each intermediate district would be extremely helpful to coordinate media services with the intermediate district and aid small districts in program development. The loss of special levies in many of the school districts throughout the State resulted in reduction of numbers of media personnel—professional and supportive—at the building level. Of the 1,137 elementary schools in the State, only 584 reported a certificated person who served at least part time as a librarian.
- In *Guam* an additional media specialist is needed at the State level to improve the quality and utilization of instructional materials acquired under title II and to assist the library coordinator. Additional help is needed for the Central Depository to do the centralized processing of all materials. This would increase the availability of instructional materials and have them ready for use within a shorter period of time. At the school level, especially in those with enrollments over 500, a second qualified librarian is needed to provide children with the individualized guid-

ance they need in the use of materials, and to assist teachers in selecting materials.

- The one mandatory service that is essential for improving the quality of the *Bureau of Indian Affairs* current effort in title II and in instructional materials in general is the opportunity for inservice training. The cost of such an endeavor would be excessive in relation to the amounts of money presently received under title II.
- At the State level in *Puerto Rico* additional supervisory personnel are needed in the school library and audiovisual programs. Technical assistance is needed in the use of audiovisual equipment and materials. At the district and local levels, six regional supervisors are needed, and 36 local media specialists. Two additional general supervisors are needed to help in the utilization of materials.
- *Nebraska, North Dakota,* and *Wisconsin* noted that professional media personnel to serve elementary school children and teachers is the prime need at the local school level. During the recent pinch for local school funds, elementary school library positions in some areas were deleted. In addition inadequate financing at the local level not only did not provide adequate personnel, but also did not permit provision of centralized school media facilities.
- Qualified school media personnel at the elementary level are desperately needed in *New Hampshire*. As more sophisticated audiovisual material becomes available for use by teachers, it is necessary to provide assistance through the services of qualified persons. As programs involving television, video recordings, transparencies, and single-loop films become available in our schools, teachers indicate great interest and need for improvement of skills to utilize them effectively in the classroom.

Geographic distances in *Iowa* and *North Dakota* posed distribution problems within school districts. Housing and circulation of materials were other problems encountered in the small, isolated schools. To encourage a more efficient delivery system, Iowa planned to add an incentive factor in its relative need formula. Because of decreased funding, a number of small districts in *Michigan* chose not to participate in the title II program.

External problems troubled the situation as well. Back orders and substitute orders resulting from publishers' and producers' inability to make timely deliveries continued to plague several States. Public school districts were urged to reorder or seek substitutes for unavailable items.

## STATE MANAGEMENT OF THE TITLE II PROGRAM

In the 5 years of the title II program, State departments of education (or State education agencies —SEA's) have made sparing use of funds for administration, choosing instead to devote available funds as much as possible to acquisition of materials to be used in instructional programs. They recognized, of course, that without capable administration, acquisition might be ineffective, and that responsibility for efficient administration required appropriate provision of leadership and consultant services.

Although the SEA's spent increasingly less in actual money in fiscal 1969 and 1970 than in 1968 or 1967, the percentage of the allotments spent for administration appears larger (table 12). This is so, of course, because of the sharp reductions in appropriations in the later years.

**Table 12.—Funds available and funds expended for State administration and for acquisitions under ESEA title II programs: Fiscal years 1966-70**

| Fiscal year | Allotment | Expenditures | | | | Total expenditures (Col. 3 + 5) | Percent of allotment expended |
|---|---|---|---|---|---|---|---|
| | | Administration | | Acquisitions | | | |
| | | Amount | Percent | Amount | Percent | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| 1966 | $100,000,000 | $1,984,158 | 2.0 | $95,298,079 | 98.0 | $97,282,237 | 97.3 |
| 1967 | 102,000,000 | 3,812,688 | 3.8 | 95,745,032 | 96.2 | 99,557,720 | 97.6 |
| 1968 | 99,234,000 | 4,428,073 | 4.5 | 94,024,821 | 95.5 | 98,452,894 | 99.2 |
| 1969 | 50,000,000 | 3,035,422 | 6.2 | 46,153,184 | 93.8 | 49,188,606 | 98.4 |
| 1970 | 42,500,000 | 2,386,828 | 6.4 | 34,913,640 | 93.6 | 37,300,468 | 87.8 [1] |
| Total | 393,734,000 | 15,647,169 | 4.1 | 366,134,756 | 95.8 | 381,781,925 | 96.9 |

[1] A statutory amendment permitted carryover to the next year of unexpended funds.

For acquisitions under approved projects, expenditures totaled $34.9 million in fiscal year 1970, of which $1.5 went for ordering, processing, delivery, and cataloging of materials. With the $2.38 million for administration, the total outlay comprised only 87.8 percent of the appropriation, as against 97.3 to 99.2 percent in earlier years. Fortunately, an amendment to the legislation (the so-called Tydings amendment) permitted for the first time a carryover to the next year of unspent funds. Otherwise the lateness of the appropriation might have caused either a forfeiture of funds or a stampede into hasty and possibly wasteful spending before the year's end.

Materials acquired under title II are categorized in three ways for reporting purposes:

1. Textbooks
2. School library resources (books—other than textbooks—periodicals, documents, pamphlets, photographs, reproductions, pictorial or graphic works, musical scores, maps, charts, globes, sound recordings—disc, tape, or other—processed slides, transparencies, films, filmstrips, kinescopes, videotapes, or any other printed and published or audiovisual material of a similar nature) which are processed and organized for use of pupils and teachers
3. Other instructional materials (these same resources, but not processed and organized).

In fiscal year 1970, the States continued to give highest priority to school library resources, which accounted for 90.8 percent of the outlays for acquisition (table 13). The relatively small outlay from title II

**Table 13.—Cost of school library resources, textbooks, and other instructional materials acquired for use of children and teachers under ESEA title II programs: Fiscal years 1966-70**

| Fiscal year | Total acquisitions | School library resources | | Textbooks | | Other instructional materials | | Ordering, processing, cataloging | |
|---|---|---|---|---|---|---|---|---|---|
| | | Amount | Percent | Amount | Percent | Amount | Percent | Amount | Percent |
| 1966 | $89,978,365 | $77,520,136 | 86.1 | $2,959,485 | 3.2 | $5,327,473 | 5.9 | $4,171,271 | 4.6 |
| 1967 | 96,678,851 | 83,813,850 | 87.0 | 3,108,949 | 3.0 | 4,030,201 | 4.0 | 5,725,851 | 6.0 |
| 1968 | 93,520,687 | 82,238,230 | 88.0 | 2,174,495 | 2.0 | 3,539,240 | 4.0 | 5,568,722 | 6.0 |
| 1969 | 46,153,184 | 40,658,520 | 88.0 | 727,286 | 1.6 | 2,212,541 | 5.0 | 2,554,837 | 5.5 |
| 1970 | 34,913,640 | 31,685,677 | 90.8 | 244,157 | 0.7 | 1,429,828 | 4.1 | 1,553,978 | 4.5 |
| Total | 361,244,727 | 315,916,413 | 87.5 | 9,224,372 | 2.6 | 16,539,283 | 4.6 | 19,564,659 | 5.4 |

funds for textbooks has been declining steadily, from 3.2 percent in 1966 to less than one percent in 1970, with only some 15 States using title II funds for them. Less was also spent in 1970 for ordering, processing, and cataloging materials—4.5 percent, against 5.5 the previous year and 6.0 percent the 2 preceding years.

Expenditures for audiovisual materials show increased use. Based on reports from those States and other jurisdictions which supply data in this form, purchases of audiovisual materials in fiscal 1970 comprised nearly 29 percent of total acquisitions (in funds spent), as against 19 percent in 1966 (table 14).

Increased availability of audiovisual (as well as printed) materials helps teachers to a great extent to improve their teaching methods and to individualize instruction; but most schools do not yet have a sufficient variety of materials to induce teachers to make sweeping changes in their instructional methods or students to develop different and more desirable reading, viewing, and listening patterns and attitudes.

**Table 14.—Funds expended for total acquisitions and for audiovisual materials under ESEA title II programs: Fiscal years 1966-70**

| Fiscal year | Total amount expended for acquisitions | Total amount expended for audiovisual materials | Percent of acquisition funds expended for audiovisual materials |
|---|---|---|---|
| (1) | (2) | (3) | (4) |
| 1966 | [1] $85,807,094 | $16,499,187 | 19.1 |
| 1967 | [2] 90,953,000 | 22,153,019 | 24.3 |
| 1968 | [2] 87,951,965 | 24,507,227 | 29.0 |
| 1969 | [2] 43,608,347 | NA | — |
| 1970 | [3] 34,913,640 | 9,931,112 | 28.4 |

NOTE.—NA=Not available.
[1] Based on data from 49 States, D.C. and 4 outlying areas.
[2] Based on data from 48 States, D.C., and 4 outlying areas and BIA.
[3] Based on data from 50 States, D.C., and 4 outlying areas and BIA.

### Management of Acquisitions

School library resources, textbooks, and other in-

structional materials are made available to children and teachers in public and private schools under the ESEA title II program on the basis of relative need. The criteria applied by State departments of education in deciding relative need are evaluated from time to time and adjusted to changing situations.

The sharp reductions in appropriations, first in fiscal year 1969 (from $99.2 million to $50 million) and then in 1970 (to $42.5 million) affected the relative need formula, as well as necessitating reduction of special-purpose grants and curtailing of essential services. As has been said, SEA's endeavored to maintain as high a level of acquisitions as possible.

- *Delaware* transferred administrative funds in order to fund a number of special-purpose grants. *Vermont* funded projects for elementary school children only in fiscal year 1970; elementary school projects also held high priority in *Rhode Island*.
- *Massachusetts* was unable to add professional materials to the headquarters and regional collections maintained by the State department of education for the use of media specialists and teachers, because of the reduction in funds. It was also necessary to terminate the special-purpose grant program.

**Improved Management Techniques**

Experience, dissemination of exemplary practices, and interchanges of information are showing their effects in more efficient management and better informed allocation of priorities under pressure of reduced budgets.

- *Delaware* reported improvement in the forms used for project applications submitted by the local education agencies and also updated a survey of resources for use as a factor of relative need.
- In *Puerto Rico*, two employees were assigned to the textbook program to assist in the supervision, distribution, location, and use of textbooks purchased with title II funds. New forms and records were designed to improve administrative and supervisory procedures in the textbooks division.

  New purchasing procedures were established which have accelerated the acquisition program, making possible substitutions in case of unavailable materials. Acquisition of audiovisual materials was performed according to a systematic analysis of units of studies by media specialists in coordination with curriculum supervisors, program directors, and teachers.

  The technical processing of such materials as textbooks, library books, and audiovisual materials related to science and vocational programs, formerly performed by the Commonwealth Treasury Department, is now a responsibility of the purchasing division in the Department of Education. This will greatly facilitate purchasing and delivery procedures and reduce delay in receiving materials, still the major weakness of the program.
- *West Virginia* departed from the "something for everybody" approval which had previously spread funds so thinly that there was little evidence of benefit. The concentration of funds on projects in areas of critical need appears to have been more beneficial.
- In *Tennessee*, SEA personnel have been able to coordinate the use of title II funds with the overall Library and Instructional Materials Program in the State, improving the availability of materials to children and teachers. Private schools have been assisted by members of local public school, and occasionally SEA, staffs in improvement of their instructional programs through use of title II materials.
- *Hawaii* limited the acquisition of printed materials to paperback books, and broadened the types of audiovisual materials acquired to include more than filmstrips and tapes, to which schools had been limited in previous years. Backfiles of periodicals and of original copies of early print materials on microfilm were started by many high schools with title II funds to enrich the curriculum in social studies, economics, world affairs, and other units of study.
- The *Bureau of Indian Affairs* continued to work closely with title II program officers in the office of education, and began preparatory work for dissemination of the exact expenditures made from all funding sources to benefit children through the acquisition of instructional materials. From evaluations of the previous year's effort made by field locations, the Bureau determined that title II funds had been spread too widely and that it would be better to deal with the program from a project approach. A specific objective would be to point out to the Department of the Interior, the Office of Management and Budget, and the Congress the need for an adequate financial base if academic retardation of Indian youth is to be eliminated.
- *Alaska* also decided that part of its title II funds would be used in fiscal year 1971 to support programs of innovative instructional techniques and curriculums. Special-purpose projects are being planned to foster the establishment of central school media centers to serve areas lacking such facilities and to help implement the State reading plan. The Alaska State Library has established a basic

collection of about 50 books packaged for various grade levels, K–3, 4–6, for example, and has sent them to rural schools. It is presently putting together a packaged collection for subject areas or units which will be made available to schools upon request.

- The one major change in *Arizona's* management of title II acquisitions was to change the State rule requiring receipt of materials and liquidation of obligations within 1 month after the close of the fiscal year. The time period now conforms to that permitted by Office of Education regulations.

- *Guam* has changed its management of title II acquisitions to handle centrally all purchase orders in order to supervise more closely the expenditure of funds. Individual project applications are still submitted and are reviewed and approved before the orders are written. Paperbacks were introduced into the schools of Guam for the first time as a result of title II. Their introduction was overwhelmingly successful.

**Accessibility of Loaned Materials**

A 1966 amendment to title II required States to assist local education agencies from their administrative funds in discharging responsibilities assigned to them for distribution and control of materials acquired under title II. The requirement was set out in regulation 117.5(c). Implementation of this requirement, like other aspects of the program, was reduced by the reduction in funds in fiscal years 1969 and 1970.

- *Missouri* reported that "the implementation of regulation 117.5(c) has increased the variety of materials available to schools, particularly in cases where catelogs and lists supporting specific areas of the curriculum are in use. This has, undoubtedly, helped to enrich those curricular offerings."

- *Iowa* has developed a centralized catalog of professional nonprint materials for all 16 centers. Several of the Iowa centers furnished book catalogs of center holdings to schools for integration into their own card catalogs. Lists of nonprinted materials for interchange were prepared more frequently than lists for printed materials.

- Florence, *Alabama*, city schools have found the preparation and circulation of lists of materials as required under regulation 117.5 an excellent means of fully utilizing materials from the demonstration library grant.

- Regional, district, and school level audiovisual centers in *Puerto Rico* have prepared lists and catalogs of available materials. These lists and catalogs were circulated among the public and private schools in the school district and among the various school districts in each region.

- The *Trust Territory of the Pacific Islands* does its best work in the dissemination of lists and catalogs when it deals with audiovisual materials. Districts issue their own catalogs, and materials are borrowed by means of them. Headquarters personnel, particularly, attempt to present packaged programs which utilize all media, and some of these kits are loaned to schools throughout the Territory.

- More children and teachers in the State of *Washington* were provided access to more varied materials than previously because of the dissemination of lists or catalogs of specified materials. The fiscal year 1970 applications showed that the 245 districts participating in the title II program circulated the following types of materials: encyclopedias, slides and transparencies, periodicals, 8mm. and 16mm. films, other printed library materials, disc and tape recordings, programed instructional materials, maps, charts, graphs, globes, and filmstrips.

- *Texas* reported that the interchange of material has achieved a desirable outcome in making all materials purchased with Federal funds available to all teachers and children in a specific geographical area. Some modifications of circulation procedures and some central scheduling further enhanced the original purpose of the provision of lists.

**Coordination With Other Programs**

The title II legislation requires that the State plan provide assurance that there will be coordination at State and local levels between title II and programs carried out under the Library Services and Construction Act (LSCA). Even without specific legislative mandate, however, in the interest of achieving greatest possible educational benefit, administrators seek mutual reinforcement between title II and other Federal aid programs wherever feasible. This is sometimes accomplished routinely by State department education personnel in review, approval, and monitoring of media-related projects in all programs. Often coordination occurs at the initiative of a program administrator who sees advantages through cooperation in a specific situation.

Title II often provides software to be used with instructional equipment acquired under title III of the National Defense Education Act (NDEA). Title III subject specialists are frequently asked for consultative help in selection, organization, and use of

materials to be bought with ESEA title II funds. New media centers in elementary schools serving disadvantaged children have been established, using ESEA title I funds for media facilities and equipment and professional and clerical media personnel, and title II funds for books and other instructional materials.

- *Pennsylvania* reports that 100 school media centers established under title I in Philadelphia were lent materials under title II.
- In *Delaware*, title II materials supported two early childhood education projects funded under title I.
- The administration of the title II program in *New York* provides high priority for projects showing a comprehensive program coordinating a number of funding sources to make a measurable impact on teaching and learning.
- Representatives from the title II staff in *Vermont* and *Rhode Island* serve on advisory committees for the Library Services and Construction Act.
- *Iowa*, through its regional educational media centers, utilized some title I funds to purchase instructional materials to support individualized instruction; ESEA title III funds for ongoing projects; some ESEA title V funds for an educational television and media workshop for teachers and administrators; funds from the Vocational Educational Amendments of 1968 for vocational materials; and special education funds for specialized materials.
- ESEA title II and LSCA title IV–A funds were coordinated to fund projects for two schools attended by exceptional pupils in *Massachusetts*.
- *Missouri* has developed close cooperation with the LSCA program, and has effected coordination of title II and title III ESEA through title II special programs projects.
- *Minnesota* and *North Dakota* encourage local districts to use part of the ESEA title II funds for materials to use with equipment purchased under NDEA title III.
- *Michigan*, *Nebraska*, *South Dakota*, and *Wisconsin* reported that coordination of programs at the State and local levels in more informal than formal, but is practiced, nevertheless.
- In *Oklahoma*, title II materials are bought for title I reading programs. A series of workshops were conducted by title II personnel for reading specialists in title II projects. Representatives from the State department title II staff have served on the team to approve and evaluate ESEA title V projects. Representatives from the title II staff have assisted the instructional division in evaluation.
- In Kaycee, *Wyoming*, an ESEA title III project for countywide media services also administers title II materials. Materials from both programs are distributed to four schools in the district.
- The staff of the *Tennessee* State Department of Education coordinates its efforts, insofar as possible, without regard to the source of funds. Administrators of various major areas of the department make a direct effort to involve appropriate members of the staff in various aspects of the total instructional program.
- Consultnats of the *Georgia* State Department of Education have spent a large portion of time assisting local school personnel in coordinating efforts and pooling resources to get the greatest good from titles I, II, and III of ESEA and title III of NDEA.
- The department of social studies of the *District of Columbia* coordinated the expenditure of NDEA title III and ESEA title II funds in purchasing materials for reading and for history. Professional materials were provided for a teacher training project in reading under the Education Professions Development Act.
- One of the policies promoted in the *Alaska* Federal program workshop is to combine Federal monies to meet critical educational needs. Several school districts have combined with title II funds those of other Federal programs, notably ESEA title I, to help build up their school libraries.
- The *California* State coordinator for the title II program met monthly with the SEA committee for the coordination of Federal programs to provide cooperation among administrators of all Federal programs, and to minimize duplication of effort. The 245 title II district applications in *Washington* revealed extensive coordination with Federal programs: with title I (in 91 districts); with NDEA title III (in 72 districts); with the migrant program under title I; with ESEA titles III and IV; and with others. A particular effort was extended to coordinate funds for more effective programs for Indian children.
- The *Trust Territory of the Pacific Islands* inaugurated its first library boat program. This is a 27-foot "watergoing bookmobile" which was obtained under title I of LSCA. The boat operates in the Truk Lagoon, one of the largest lagoons in the world. In addition to the usual assortment of books carried for readers at the villages where the boat regularly stops, it carries film and filmstrips, most of which were purchased under title II. Projectors used in showing these materials were acquired under other ESEA programs. Children and teachers in more than 20 schools, public and private, are reached by this floating bookmobile.

- *Guam* reported that ESEA title II funds were used to establish centralized libraries in elementary schools and to hire librarians; title II provided materials to support and enrich the English-as-a-second-language programs conducted for the disadvantaged, and programs in remedial reading and Head Start. The title II coordinator also works closely with the coordinator of the learning resource center for in-service training and with the coordinators for special education and multimedia who are both under ESEA title III. Title II funds have been used to support the NDEA program by providing selection aids and reviewing media and professional journals for the use of teachers in the selection of materials in the critical subject area. Title II has provided professional materials to support the NDEA title V–A guidance, counseling, and testing program in the schools, and also materials for pupils, especially in career and vocational planning.

- Title II has supplied materials for programs designed to meet the needs for the educationally deprived under ESEA title I in *Kentucky*. It also provides funds to support programs for mentally and physically handicapped children under the same title. Title II continues to coordinate its program with NDEA title III to assist in providing vitally needed materials for instructional programs throughout the State.

- For the first time, the *Bureau of Indian Affairs* was able to effect coordination of title II with ESEA titles I and III. An outstanding example was the Juneau area's library air bookmobile, which provides materials to support a comprehensive reading program for Indian and Eskimo youth in a remote area of Alaska. Succeeding projects that were funded made adequate provision for cooperation with titles I and III and with the Bureau's regular program funds.

- Coordination with other Federal programs is simplified in *Puerto Rico* because there is a centralized system. Title II funds are apportioned by the Secretary of Education by recommendation from the Assistant Secretary of the regular program of instruction and are then administered by the heads of each of the three departmentwide offices involved, the textbook division, the school library program, and the audiovisual program. These directors are responsible for purchasing these materials and textbooks for all the department's needs under all Federal and State programs. It has been possible to use ESEA title II and NDEA title III funds according to priorities. Title II funds have been used to accomplish objectives in ESEA title I and III proposals. Libraries established in title I areas also received books and materials from the title II school library program.

## PARTICIPATION OF PRIVATE SCHOOL CHILDREN AND TEACHERS

Children and teachers in nonpublic elementary and secondary schools are equally eligible with their public school counterparts to use title II materials (title to which must remain vested in a State or local public agency). An effective working relationship has developed between public and private school personnel in furtherance of the title II program. Private school personnel have been involved in title II State advisory committees in more than half the States, and have assisted in making needs assessments and selections of material, and in suggesting and perfecting administrative and program practices.

- Nonpublic schools in *Iowa* receive service from the area centers identical to that given to public schools.

- Private schools participating in the *Missouri* program evaluated their collections to substantiate the need for materials, to meet the need factor in the State's relative need formula.

- The *Minnesota* Commissioner of Education organized a study committee of public-private-parochial segments of elementary and secondary education to share information about programs and services through the department to nonpublic schools.

- In *Tennessee*, the only major weakness is an otherwise excellent relationship between public and private school personnel has been a lack of sufficient numbers of trained professionals in some school systems to help private school personnel in media selection.

- In *Nebraska*, "Media Family Affairs" inservice programs were attended by more than 300, some representing nonpublic schools. Also, the media mobile or "The Consultant's Briefcase" were available, upon request, to nonpublic schools.

- Seven hundred and twenty nonpublic schools in *Wisconsin* participated in a "status study."

- As public school collections grew in *Illinois*, private school children and teachers received increased benefits (though less than expected because of reduced funding). Nearly half-a-million nonpublic school children participated in the title II program in fiscal 1970. Consolidation and phasing out of some nonpublic schools resulted in 23 fewer schools participating.

- *Florida* summed up the strengths of its program for private school children and teachers: opening of public-nonpublic school lines of communication, the beginnings of cooperative planning between public and nonpublic school personnel, access to central purchasing and

processing for the first time, and equal allocation of funds.

- *Texas* reported that private school children and teachers have access to a composite list of all materials purchased under Federal programs; this has facilitated borrowing of materials housed in public schools. Private school personnel are involved in the review and approval procedures used in processing the local school district's consolidated application to insure equitable access to materials by all teachers and children within the district's geographical boundaries. The main weaknesses of the program for private school children and teachers are the limited number of professional media specialists in the schools to implement the program and inadequate space to house centralized material centers.

- In *Arizona*, 60 percent of private elementary schools had participating children, compared with 47.5 percent of the public elementary schools; 46.4 percent of private secondary schools had participating children, compared to 55.3 percent of the public secondary schools.

- The effectiveness of *California's* title II program for the children and teachers in private schools could be assessed in part by reactions at workshops held for personnel of the more than 200 private schools in the Los Angeles area. A study of private school forms submitted for title II basic grants showed an increasing measure of financial support of private schools for their library resources.

- There is evidence of greater cooperation in the State of *Washington* between the public and private school personnel in the administration of the title II program. At the request of the State title II team and the advisory committee, which includes private school representatives, the applications for next year are being revised to help assure greater participation of the private school sector in the planning as well as the implementation of title II programs at local levels.

  In Washington, also, 8mm. single-concept films for teaching social studies were made available in five private schools in an inner city area. The students in these schools are from various ethnic backgrounds, and many do not hear English spoken in their homes. The audiovisual materials are expected to be of particular help to them in improving their mastery of English.

- The *Oregon* plan for making materials accessible has brought public and private school personnel closer together for exchanging materials that were listed.

## STAFFING AND STAFF DEVELOPMENT

State department of education personnel assigned to the administration and supervision of the title II program include full-time and part-time administrators, school media specialists, curriculum and subject specialists, secretarial and clerical staff, and others such as consultants and fiscal and statistical personnel. The reduction in available funds, and the determination to provide the maximum amounts possible for acquisitions, caused curtailment of staff in some States and prevented others from engaging needed additional staff. They endeavored by careful planning and revised methods to increase efficiency in the face of increasing workloads and decreasing numbers.

- Four States—*Illinois*, *Minnesota*, *Missouri* and *South Dakota*—reported loss of more than seven professionals.

- *Massachusetts* lost three professional staff members.

- *Delaware* reduced supportive personnel to a half-time secretary.

- Three vacancies in the *New York* department remained unfilled.

- *Missouri* reduced collection and dissemination of data and other information because of staff reduction.

- A vacancy in the department of library services of the *Kentucky* State Department of Education, created by the resignation of one of the consultants, put the full burden of implementing the program on the remaining consultant. This is particularly important to the quality of materials purchased, since all applications are carefully reviewed for approval by library services personnel.

- *Arizona* lost two professionals and two clerical positions.

- *Hawaii* lost several clerical positions.

- A vacancy in the position of State title II consultant on library resources in *Oregon* was finally filled well after the start of the fiscal year.

- In *Washington* a member of the State division of institutions was assigned as liaison person with the responsibility of coordinating the title II program for the children and teachers in institutional education programs.

- The *Bureau of Indian Affairs* made a fundamental change in the assignment of responsibility for the administration of title II. Project directors were asked to assume full responsibility for the program in those locations that could be funded from title II in special projects, rather than assigning the responsibility to the area offices as before.

- In *Florida*, the position of title II coordinator remained vacant. The duties were divided among the director of Federal-State relations, the director of educational media, and the evaluation consultant. To try to overcome the shortage of trained personnel, Florida scheduled additional workshops and other inservice training programs.

Some States—*Wisconsin*, *Minnesota*, and *North Dakota*, for example—were able to augment their title II staffs or engage title II personnel for the first time. They did not specify what services, if any, had to be curtailed to compensate.

- In *Georgia*, a consultant position was reestablished to assist public and private schools in the implementation of the title II program.
- In the *District of Columbia*, a liaison person was added to the staff of the director of general programs to work directly with the education specialist who is responsible for the operation of the title II program. This position facilitates coordinated planning with other Federal programs, and communication between the department of libraries and the department of Federal programs.

**School Media Personnel**

As distinct from State department of education personnel, school media personnel cannot be hired with title II funds, but the reports from the States indicate that title II has stimulated employment of significant numbers of these specialists in school district central offices and individual schools.

- In the past 2 years, about 145 full-time and 40 part-time professional positions have been added to media center staffs in *Massachusetts*, plus some 100 full-time and 122 part-time clerical positions.
- *Pennsylvania* reports that over 100 persons have been employed as media specialists, technicians, and clerks as a result of Federal programs.
- *Michigan* has added 100 media specialists and 300–350 supporting positions.
- *Illinois* reported 1,000 new positions, without specifying.
- *Ohio* reported from a study of its 1968 special-purpose grants that 11 of the 18 districts used 34 percent of their local expenditures for additional personnel.
- *Nebraska* school systems recruited 28 new professionals and 46 clericals.

The Nebraska relative-need formula includes a personnel factor which has encouraged local districts to add qualified media staff or train personnel already on hand.

- *Wyoming* reported that 17 aides and clerks, and three media specialists, had been employed as a result of Federal programs for assistance to school media programs.
- *Texas* estimated that 39 local school district library supervisors, 850 media specialists, and many clerks have been employed since the beginning of the title II program.
- In *Arkansas*, five media specialists were employed in fiscal year 1970.
- The number of media specialists, technicians, and aides has increased approximately 5 percent as a result of Federal programs in *Oklahoma*.
- In 1965 there were 106 school districts in *Kentucky* with no designated elementary librarian. The secondary librarian, in many instances, rendered services to elementary pupils. By 1969 there were only 39 districts with no designated elementary librarian. In 1965, there were 275 elementary librarians and 1,788 elementary schools. In 1969, there were 655 elementary librarians and 1,204 elementary schools. In 1970, there were 688 elementary librarians and 1,056 elementary schools. Not only are more schools being served by more librarians, but the number of librarians meeting certification standards is rising.
- During fiscal year 1970 there were 1,371 schools in *Georgia* with at least one full-time media specialist; 236 schools shared the services of 113 media specialists serving two or more small schools. Thirty-five local systems and supervisory programs had one or more full-time media consultants, and 15 other small systems had part-time consultative services of a media specialist working in one of the small schools. About 150 media specialists, technicians, and clerks were employed as a result of Federal programs.
- Approximately 200 media specialists and 100 clerks have been employed as a result of title II and related programs in *Tennessee*.
- According to the *Washington* State title II applications for fiscal year 1970, two supervisors, four media specialists, 26 librarians, and 40 library aides were employed as a result of Federal programs of assistance to local school media programs.
- Twenty-four librarians have been employed in *Guam* as a result of Federal programs of financial assistance to local school media programs—21 in elementary schools, three in secondary schools. Of the latter, two are second librarians, one each for the senior high schools, and the third serves the Vocational and Technical School. Twenty-five schools have part-

time audiovisual coordinators, and four secondary schools have full-time coordinators. Seven clerks employed as a result of Federal aid are assigned to secondary schools, 11 to elementary schools.

- In *Florida* local school districts report that since the passage of ESEA, the number of media specialists, technicians, and clerks has increased steadily. Thirty-two of the 67 local districts in Florida have one or more media specialists whose sole responsibility is to develop, implement, and administer the educational media program. Prior to ESEA, only a very small number of school districts had more than one person on the district staff responsible for the school media program. Today the number of professional media specialists on district administrative staffs ranges from one to 15, and the multiperson staff is the rule rather than the exception. Many technicians and clerks are employed at the district level to support the media program. Also at the district level, there are Federal program coordinators, general supervisors, and textbook managers in each of the 67 districts who share responsibility for the materials program.

**Staff Development**

Administrative funds available to the States under title II may be used to provide leadership, supervision, and inservice education to participating local education agencies. These programs offer staff development opportunities for teachers and media specialists in the selection and utilization of instructional materials.

- Workshops have been held in the examination centers funded in *Pennsylvania* under title II to demonstrate superior school media programs. School administrators, media specialists, and teachers attend these sessions as a team. Review materials are available and bibliographic and consultative assistance is offered.
- Because of the shortage of administrative funds, *Ohio* and *Wisconsin* used means other than meetings for staff development. Ohio chose to do onsite visitations in more than 250 school districts, produce a filmstrip featuring media centers in Ohio's secondary schools, and participate in professional association meetings. Wisconsin conducted an educational telephone network (ETN). Using telephone lines, it opened up 35 outlets around the State and involved 355 participants in five programs. Approximately 3,550 man-hours of inservice training were completed on the topic, "Developing Effective School Media Programs." The Wisconsin title II State staff developed, published, and distributed a new manual for teaching library skills, *Learning To Use Media*.
- *Nebraska* decided "to put the show on the road"—to demonstrate the use of materials during site visits, workshops, and through a series of programs entitled "Media Family Affairs," which attracted administrators, media specialists, teachers, college personnel, students, and others. Eight separate meetings were held with the same basic format.

  A second venture undertaken during the 1970 school year by the SEA's title II personnel, also available to both the public and nonpublic schools, was "The Consultant's Briefcase," convincingly announced across the State. A series of inservice workshops and professional growth activities was the result. This mobile unit was commissioned for use by county groups, local school organizations, college training personnel, and nonpublic schools. It was maintained as a display unit (for books on exhibit and other print materials), as a selection resource, and as a workshop in itself. Requests for this service exceeded expectations and many had of necessity to be rejected.
- *Michigan* used a 1-week workshop, attended by 58 personnel without library training who work in school libraries. The program, taught by staff from the Bureau of Library Services, Michigan State Department of Education, with the addition of an audiovisual specialist from a local school district, emphasized selection, organization, use and care of both printed and audiovisual materials.

  Individual consultants held several "miniworkshops" in their geographic areas. These ranged from a day-and-a-half to three mornings in 1 week in length. One heavily-populated intermediate school district cooperated and shared staff with a State-level consultant in sponsoring a three-morning session every 2 months, generally limited to 15 people. Individual school visits helped develop, improve, and expand local media programs.

  The mobile was used in six intermediate school districts for from 2 weeks to 2 months, depending upon the size of the area to be covered and the local needs. The State consultants helped in the planning but did not participate in the programs, which varied from district to district. Small demonstrations may be held in the unit, but for larger groups the consultant generally goes into the building for the program or demonstration.
- In *Oklahoma*, inservice education was in two areas of interest: the reading program and standards for school media programs. Eight workshops were conducted in cooperation with the State department's reading consultant. Material selection, organization, and use were the focal topics. Three hundred media specialists, teacher librarians, and aides participated in a

workshop sponsored jointly by the title II staff, Oklahoma School Librarians Association, and the American Association of School Librarians on implementing standards for school media programs.

- In *Colorado*, an inservice program for elementary library personnel was conducted to help develop full utilization of title II materials.

- In *Georgia*, inservice programs for teachers and aides have been conducted in 35 school systems this year in the administration, selection, utilization, and production of audiovisual materials. Teachers and aides have learned to make quality teaching materials and to be more discriminating in the selection of commercially produced materials.

  The school library services unit has participated in inservice workdays sponsored by local school systems emphasizing improved use of all kinds of media in the instructional program. A statewide 2-day conference jointly sponsored by the school library services unit and the library department of the Georgia Education Association had as its theme "New Techniques for Services."

- In *Tennessee*, three regional conferences are held annually for school librarians which include discussions on the selection and use of all types of materials. Many local systems have planned inservice training programs prior to the opening of schools as well as during the school year, with consultative service from the State level.

- Meetings for teachers on selection and use of materials and demonstrations on use of materials in special situations have been held, with emphasis on inner city schools in the *District of Columbia*. Concentrated efforts have been made in the prekindergarten area where materials are so vital to concept formation. All teachers are working on intensive self-analysis and self-improvement with a focus on the areas of reading and mathematics. Materials added to the professional library are assisting immeasurably in the simultaneous attack on all problems.

- Both inservice programs and consultative services have provided opportunities for discussion of selection, organization, and utilization of materials acquired under the title II program in *Kentucky*. Professional meetings with librarians throughout the State have also been planned around these themes and their relationship to the title II State plan.

- Although not reflected in *West Virginia's* narrative report, a large portion of State administrative funds was used to provide a workshop for two representatives from each local education agency who would be working in some capacity with elementary instructional materials.

- Workshops were held in different districts in *Hawaii* in relation to the title II program on evaluation of commercially prepared transparencies, evaluation of commercially prepared audiotapes, role of the librarian in independent study and individualized instruction, evaluation techniques (books and nonbook materials) and compilation of subject index for union catalog of tapes and films.

- Most of the consultant services in *Guam* are given at the building level on an individual basis and cover such areas as selection and use of materials, and school library program development. During the past year, workshops for large groups were conducted on the title II program in Guam and on the acquisition and processing of nonbook materials.

- The *Bureau of Indian Affairs'* school library supervisor provided consultative services to all the special projects except the one in Alaska, and expects to assist there also.

- Although *California* was able to hold three inservice sessions in three different districts on how library resources may be used in programs for the gifted, several other workshops planned for the year had to be canceled because of the reduction in title II funds.

- *Alaska, Arizona,* and *Nevada* were able to conduct no formal inservice work because of the limitations of time and staff.

- The improvement of instruction in elementary and secondary social studies, mathematics, and science programs in the *Trust Territory of the Pacific Islands* was a major emphasis of headquarters personnel during the past year. More than one workshop for each of these subject areas was held during the year, involving a large number of teachers, and directed by headquarters staff with outside consultants. Materials acquired with title II funds aided both the workshops and the acquisition of materials selected for use as a result of the workshops. A high school librarian completed a 6-month internship, with the result that he became his district's first supervisor of library services.

- Inservice programs in *Alabama* were devoted to devising ways of getting materials used. Many groups compiled handbooks of methods and suggestions to motivate teacher interest. Materials provided under title II have contributed to the efficiency of the State consultants who work with teachers, principals, superintendents, and parents in the State. Professional curriculum and instructional materials are available for their use in doing research on problems related to the improvement of in-

struction in elementary and secondary schools. Consultants are also provided appropriate materials to use in working with educational groups in inservice study experience. The involvement of all teachers and principals in selecting, evaluating, and using the materials makes the availability and uses of the resources mean more to them.

- In *Puerto Rico,* as a result of Federal assistance, 38 audiovisual specialists and 64 school librarians have been employed. Inservice programs and consultative services have included development of skills in the systematic analysis of study units to determine the most suitable media for each instructional need and the correct utilization of materials selected. Orientation is given to teachers in the availability and use of materials, the title II regulations, and procedures for writing proposals and requisitions. Lists of materials are printed and circulated.

## OTHER KINDS OF MANAGEMENT ACTIVITY

Reduction in amount and tardiness in availability of funds caused changes in other kinds of administrative concerns, such as collection and dissemination of information, planning, use of advisory committees, and the like. Nevertheless, work continued.

- *Rhode Island* used some new techniques to disseminate information about the title II program to school administrators, school board members, and other influential groups, including presentations to the Board of Regents and to the presidents of local chapters of national professional organizations, a radio talk-back program, and a combined meeting of the School Library Association, the Audiovisual Association, and the Association for Supervision and Curriculum Development.
- Four new members were appointed to *Washington's* State Advisory Committee, raising the membership to 16.
- *Iowa* reported holding advisory council meetings, regional meetings to apprise the directors of the area centers of administrative details, and one meeting jointly sponsored by the Regional Educational Media Centers and the State Department of Public Instruction, for county superintendents, county school board members, and regional center personnel.
- *Pennsylvania* made a careful check of advisory committee membership to insure that ethnic groups and public and private schools are represented.
- In *New Jersey,* secondary school students are serving on the title II advisory committee.

The State departments of education have intensified their efforts to involve title II and related programs intimately into furtherance of the Right To Read effort. The prospect of restored funding for the succeeding year and prompter availability of the funds has encouraged them to undertake planning on a greater scale. Their plans include formal evaluations of title II, more sophisticated dissemination methods, increased emphasis on reading in public and private schools, and more special-purpose grants relating to reading.

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# STRENGTHENING INSTRUCTION IN SCIENCE, MATHEMATICS, FOREIGN LANGUAGES, AND THE HUMANITIES AND ARTS
# TITLE III, NDEA

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# IV.

# Strengthening Instruction in Academic Subjects

## Title III, Part A

## NATIONAL DEFENSE EDUCATION ACT OF 1958 (Public Law 85-864) as amended

## Fiscal Year 1970

State coordinators for title III–A of the National Defense Education Act (NDEA) administered the program in the face of fiscal uncertainty during much of fiscal year 1970. Because the 1970 budget request had included no funds for the program, coordinators began making tentative preparations for final administrative activities. When an appropriation was enacted in March 1970, however, they quickly began soliciting and approving projects from local education agencies. Funds available totaled $37,179,000, of which $34,679,000 was designated for the purchase of equipment and materials and for minor remodeling, $2 million for administration of the State plan, and $500,000 for loans to nonprofit private schools. This compares with a 1969 appropriation of $78,240,000, including $75,240,000 for equipment and minor remodeling, $2 million for administration, and $1 million for private school loans. (To receive grant funds, States are required to provide equal matching funds. The private school loan program is administered by the U.S. Commissioner of Education.) In seeking to assure expenditure of limited funds for the most pressing needs, State coordinators gave priority generally to projects stressing basic instruction, innovative ideas, and target student groups.

Public Law 91–230, amending the Elementary and Secondary Education Act, assisted State and local education agencies in planning for the judicious use of funds. Section 405(b) of the law, known as the Tydings Amendment, allowed education agencies to carry over into fiscal year 1971 parts of their grants unspent during fiscal year 1970.

Public Law 91–230 also revised NDEA by changing the term "critical" to "academic" subjects and deleting the listing of specific subjects. The same law repealed section 12 of the National Foundation on the Arts and the Humanities Act; the arts and the humanities are now included in the NDEA program.

A series of three regional conferences was sponsored by the Bureau of Elementary and Secondary Education of the Office of Education in 1970. Held in May in Washington, D.C., Kansas City, and Denver, the conferences brought together for the first time in several years most of the NDEA title III coordinators from the 50 States and other areas. Participants discussed not only concerns unique to their respective States, but plans and documents being developed for the program as well.

### STATE EDUCATION AGENCY SERVICES TO LOCAL EDUCATION AGENCIES

Reports from the States revealed no radical departure from fiscal year 1969 in the services made available to the local education agencies. As in previous years these services consisted of workshops and conferences, project development, curriculum development, and publications. All of the eligible subjects received attention from State coordinators, consultants, and instructional specialists. Emphasis on specific subjects, however, differed among the States. Factors such as the recognition of specific needs within a particular geographic area determined priorities set by State legislatures. For example, the general assembly of one State laid primary stress on what it termed "occupational education." To meet this requirement the SEA made economics and industrial arts its primary concern.

Most States reported earnest efforts to improve in-

dividual teaching techniques. Toward this end, virtually all of the States exhibited a continuing thrust in the direction of more and better workshops, conferences, and inservice teacher training. Where local or regional needs required it, these consultations have placed a heavy emphasis on one of two subject areas, particularly reading and mathematics. Other efforts have concentrated on the latest research developments in instructional procedures, while some State education agencies have conducted workshops and inservice training programs broader in scope. All States demonstrate an enthusiasm for the technique. One State reported during fiscal year 1970 an estimated 36,000 to 50,000 students experienced enriched instruction as the result of consultative services and indepth workshops made available to 1,200 public school teachers.

To improve instruction in science, one State involved private industry in the funding of an inservice education program for 30 teachers on a new approach to the study of physics, and organized a 2-day seminar for more than 350 administrators and teachers of science. In the same State, the supervisor of mathematics worked with a community college to develop an inservice program in computer language and programing for 60 administrators and teachers. Another State reported a 5-hour workshop for over 500 elementary teachers and librarians on integrating the teaching of black studies with the whole curriculum.

The development of curriculum guides for improved and expanded programs was given priority in many States. In one State, the mathematics consultant helped revise the entire curriculum in the kindergarten and first grade of one school, making it less formal and less structured. The program was cited as a model for all schools of the State. In another State, a local education agency developed a positive and adequately balanced language arts program, deemphasizing remedial aspects. This was done through an inservice activity in certain school systems designated "The Living Curriculum Conference." The conference was based on the belief that the talents of the many excellent teachers in the State are invaluable resources for improved instruction. It was therefore designed with the following objectives: to identify promising and effective practices, strategies, and techniques actually being used by classroom teachers; to provide for the sharing of ideas among teachers at all levels both within a school system and among school systems, through a variety of ways such as pictures, slides, filmstrips, displays, exhibits, demonstrations, and publications; to analyze the practices, to draw appropriate inferences from them, to use such inferences as further working hypotheses, and thus to evolve helpful and practical theories for better instruction.

State education agency leadership in planning statewide improvement in instruction, and specifically in project development, continued to be evident. One State which had the previous year inaugurated a nuclear science program for 20 high schools virtually doubled that number in fiscal year 1970, purchasing all equipment and materials with NDEA title III–A funds. In addition, 121 school districts in the State either own, or have been designated to own, planetariums. While demonstrating unusual commitment to space science, this State also reported great strides in reading, industrial arts, and computer mathematics, as evidenced by the presence in its secondary schools of 75 computer and 104 mathematics laboratories.

NDEA title III–A funds stimulated State supervisors, curriculum specialists, and consultants to prepare articles for school journals which have, according to SEA reports, resulted in a further outreach on the part of faculty and administrators. In addition, the issuance of several independent publications has made a contribution to a widened understanding of the objectives of title III–A. Among those in one State are: *Improving Reading, Study Skills in Mathematics,* and *Guidelines for Evaluating Elementary and Secondary Mathematics Programs.* In another State, mathematics specialists have published *Elementary School Mathematics—A Status Report,* which in its survey of instructional materials, curriculum guides, standardized tests, and plans for curriculum has provided teachers and administrative personnel with an up-to-the-minute handbook for the development of improved procedures. Title III–A funds also made possible a publication, developed with the help of an elementary school teacher, entitled *Seven Steps To Make a Child's Own Book.*

## PRIORITIES

An agency operating with limited resources must establish a system to assure that available resources are used to meet the most pressing needs. NDEA section 303(a)(2) specifies that the State plan shall set forth principles for determining the priority of projects to be approved for Federal financial assistance and for implementing such projects.

Such principles reflect a State's consideration of factors such as the following

> Educational needs of the student-age population and special needs for particular students as related to the State's educational goals.

The importance of planning (short-term and long-range) in relation to the improvement of instruction.

The categories of materials, eligible equipment, and type of minor remodeling allowable and the State standards developed to enhance instructional programs.

Well-developed and properly applied priorities provide the basis for a systematic attack on weaknesses in instructional programs throughout the State.

In annual reports submitted for fiscal y ar 1970 by participating States and other areas, 21 States listed specific priorities, 15 identified general priorities, and 11 made no reference to priorities. As in the past, priorities in 1970 concentrated on the subject areas of science and mathematics.

Among the activities given priority by various States were those which:

- Constituted an innovative or experimental approach.
- Enriched instruction in one or two critical subject areas.
- Improved instruction in elementary schools (which are sometimes given low priority in local budgets).
- Obtained equipment or financed minor remodeling which would result in permanent or long-range improvements.
- Provided equipment for new buildings in districts having a low tax valuation.
- Provided for the acquisition of equipment and materials for talented students, after basic needs had been met.
- Provided materials for individualized programs at the K–3 level.
- Affected the greatest number of students and had the greatest impact on the education program.
- Provided equipment and materials used in establishing industrial arts programs.
- Encouraged development of occupationally related programs in the critical subject areas.
- Provided for individualized programs for students in grades 4–6.

The above priorities are representative of States in various regions, and apply to both elementary and secondary children, representing rural and urban areas alike.

## COORDINATION WITH OTHER FEDERAL PROGRAMS

Almost all States reported that their efforts to coordinate title III–A with other Federal programs had increased, though again a few reports pointed out that late funding had impeded such efforts to a significant degree.

The organizational structure of several State departments of education facilitated coordination of Federal programs. Examples given included the coordination at the State level of all programs through a director of instruction or assistant superintendent in charge of instruction or administration; the administration of two or more Federal programs by the same person; and the placement of more than one Federal program within the same organizational unit. Staff meetings were often cited as one means of keeping personnel informed about program details, of doing joint project planning in relation to needs assessments, and of working on evaluation. As another means of coordination, subject area supervisors, related services personnel, and other professional staff in some States assisted in the preparation and revision of State plans and program guidelines and reviewed project applications from various Federal programs.

State department of education personnel used various means of encouraging coordination of title III–A with other programs at local levels. They worked with local Federal program coordinators, administrators, teachers, and other staff through personal contacts, workshops, conferences, and onsite visitations to assist them in making the best use of available Federal funds. One State required submittal by each local district of a document including long- and short-range plans for improvement of instruction, showing the mix of local, State, and Federal resources to be used in funding the improvement programs. Another State used a consolidated project application form to help achieve comprehensive planning and prevent unnecessary duplication.

Specific instances of coordination of NDEA title III–A with other Federal programs in local projects were reported by the States with the following frequency:

| Program | Number of States |
|---|---|
| ESEA title I | 23 |
| ESEA title I (Migrant) | 1 |
| ESEA title II | 22 |
| ESEA title III | 12 |
| ESEA title VI | 2 |
| ESEA title VII | 2 |
| NDEA title V–A | 9 |
| Head Start | 1 |
| Follow Through | 1 |
| Vocational Education Act | 1 |
| SAFA (Public Laws 81–874 and 81–815) | 1 |

Examples given of coordination of NDEA title III–A with other Federal programs and with State and local resources indicated that title III–A funds were used to:

- Help support ESEA title I reading and mathematics projects.
- Acquire equipment needed to use materials purchased under ESEA title II.
- Support, with funds from ESEA titles I and VII, bilingual projects in one city and the foreign-language segments of ESEA title I projects in five cities.
- Acquire equipment to be used in the self-study aspects of an ESEA title III project, for which NDEA title V–A funds supported guidance counselors to accumulate personal data about the students in the project group.
- Acquire part of the equipment for school facilities constructed with ESEA title I moneys under a project for lengthening the school day. Title I paid for the additional teacher positions required and for some equipment and materials not eligible under NDEA title III–A. Some of the needed textbooks, school library books, and audiovisual materials were provided by ESEA title II.

## REIMBURSEMENT AND ADEQUACY OF EQUIPMENT AND MATERIALS

NDEA title III–A authorizes States to use their Federal allotment to pay up to 50 percent of the cost of approved projects carried out by local education agencies.

Of 50 reporting States, 34 applied a 50-percent matching formula. As a result of the approximately 60-percent reduction of title II funds from the previous year, most States imposed increased restrictions, such as dollar ceilings, one project per district, and projects limited to two or three subject areas in order to maintain the 50–50 matching. Several States shifted to reimbursement below 50 percent for all projects in order to provide some aid for more schools. The number of States reporting variable or reduced matching increased to 16. Variable matching was usually based on economic need of districts as defined in State aid formulas. Lower reimbursement on lower priority projects was used in a few cases.

Uncertainty and lateness of funding was cited in almost all reports as the major cause of a substantial drop in the number of participating districts. In most cases, the nonparticipating districts were those which needed the help most. Many of these districts simply were unable to hold the matching funds until the allotments were released. The 1-year carryover has alleviated this situation somewhat.

In spite of definite improvement during the 12 years of the title III–A program, all States reported that instructional equipment and materials are still far from adequate. About half the States felt that schools were no better or in some cases even less well equipped to use the newer student-activity-centered curriculums than they were to teach the listening, sitting, and reading oriented programs of a decade ago. Many reports expressed doubt that the approximately $1.50 per child per year which title III–A has provided in the past can improve this situation. Funding must be increased severalfold before significant improvement toward adequacy of equipment and materials can be realized. Most States indicated that with sufficient advance notice greater amounts could be matched by local districts. One report described the situation this way:

> In spite of the dire economic straits in which many districts currently find themselves, there is every reason to believe that they would match the full authorization if it were provided by Congress. Even this would not provide all of the equipment and eligible materials needed by our present school population, but over the course of several years, funding at the full authorized level would certainly supplement our school inventories to the point where curricular innovations and major program improvements would become as practical as they are desirable.
>
> The degree of adequacy varied from district to district within each State, but in general reports indicated that secondary schools were better equipped than elementary, and that middle and junior high schools were less well equipped than higher levels. One of the poorer States reported on a sampling survey of elementary schools. "Only one out of nine schools sampled had microscopes, that one reporting four. One out of nine reported that a microprojector was available. Not a single one of the nine reported laboratory balances, general science charts, or physiology charts. Only one school out of nine reported a stocked aquarium. None of the nine schools reported any science facilities such as science tables, teacher demonstration desks, display cases or display shelving. As for social studies, two schools out of 13 reported that no globes of any kind were available. Seven out of 13 reported no world history maps."

Each State had its own standards for interpreting "adequacy." Varying emphasis was given to quantity and quality. Although the range of adequacy under the various definitions was substantial, in no case was the overall adequacy in either elementary or second-

ary schools above 75 percent. A typical report gave the following breakdown regarding adequacy of equipment in the various academic areas for elementary and secondary schools, by percent of schools having adequate equipment; items which must be replaced because of normal wear or obsolescence are not included.

| Subject area | Elementary schools | Secondary schools |
|---|---|---|
| Science | 15 | 50 |
| Mathematics | 35 | 60 |
| History | 30 | 30 |
| Civics | 35 | 20 |
| Geography | 30 | 20 |
| Economics | 5 | 15 |
| Modern foreign languages | 5 | 65 |
| English | 20 | 35 |
| Reading | 50 | 15 |
| Industrial arts | 1 | 5 |

The reports indicate a strong and steady trend toward acquisition of materials and equipment for individual student use rather than for demonstration use by the teachers. The need for more differentiated materials for use by disadvantaged students and underachievers was emphasized repeatedly in the reports. The demand is growing for educational television, dial-access retrieval systems, and computers to assist instruction in science, mathematics, languages, and social studies. For all courses there was a dire need for audiovisual equipment and materials such as projectors of all kinds, films, filmstrips, film loops, microfilm viewers and printers, videotape recorders, audiotapes and videotapes, and supplies for making instructional materials.

## EVIDENCE OF IMPROVED INSTRUCTION

In spite of growing needs, all States agreed that instruction in the academic subjects was continually improving with the help of title III–A equipment and materials. The following are typical comments:

> We would like to emphasize again that title III NDEA is a program that has proved itself. It has had a profound impact on raising the quality of education. * * * It benefits all students. * * * State and local educational agencies take pride in the fact that by matching the "seed money" they are true partners with the Federal Government in an effort to improve education.
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> • • •
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> We have been able under NDEA title III to expand and improve our curriculum in science, mathematics, and practically every other subject area. It would have been impossible through local funds to implement modern teaching methods and provide advanced curriculum without this help.
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> • • •
>
> The areas of science, history, civics, and reading have been upgraded by the materials and equipment which have been made available. * * * However, in these areas there is a constant need for the upgrading of the program in order to meet the needs of the many students who make use of the facilities.
>
> • • •
>
> By providing the classroom teacher with access to varied audiovisual equipment and to a selection of instructional media, motivational and reinforcement activities have been strengthened, thus providing for the students more meaningful and indepth learning experiences.
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> • • •
>
> The improvement of the teaching-learning process is inexorably tied to method, teacher preparation, materials, equipment—the total learning environment. Due to NDEA title III, the scope, quantity, and quality of materials and equipment have improved. But much more improvement is still necessary. As new demands are made upon the * * * curriculums, it is imperative that there be a concomitant demand in the quality and quantity of resources.

Evidence of improved instruction reported by States is summarized in four categories:

1. Improved instructional patterns and techniques.
2. Curriculum expansion and improvement.
3. Student achievement.
4. Exemplary projects.

### Improved Instructional Patterns and Techniques

Individualized instruction was the technique reported most frequently as having benefited from the title III–A program. Except in those school districts still financially unable to acquire large quantities of the necessary equipment and materials, modernize their facilities, and provide the appropriate inservice training, use of this technique was accelerating. Individualized programs in 1970 were tailored to slow learners, the gifted, bilingual children, the culturally deprived, and in some cases, to all the students in certain classes or schools. Such programs were implemented at elementary and secondary school levels as well as in ungraded schools and classes.

In the early days of the title III–A program emphasis on laboratories for science and modern foreign languages stressed individualized instruction largely in those subject areas; increasingly now this approach is being applied to the teaching of mathematics, read-

ing, English, and the social studies. For example, each of 14 secondary schools in one county opened the 1970–71 school year with a 10,000-square-foot "open space" instructional area. Four of these schools used the entire area for social studies and 10 used half of it for this purpose. These open spaces brought pupils into new groupings in an effort to meet individual student needs, achieve maximum use of individual teacher competencies, and develop and use new or innovative methods, materials, and equipment aimed primarily at the individual student.

One State education agency developed and disseminated to all local school districts a new set of guidelines for the development of social studies programs, grades K–12, with the major thrust on individualized instruction and use of a wide variety of media. Another State held workshops in school districts to develop a nongraded approach to English at the high school level. One State agency consultant, upon visiting a number of schools, reported:

> * * * [each school is] grasping the resource center concept either on a department or a total school level. More attempts at individualized and programed learning are discernible. Most student quest programs are available and a greater variety of courses, particularly on the high school level, are evident. Classes in economics and sociology are increasing rapidly. I observe much more use of audiovisual materials and equipment both by teachers and students. Those most noticeable are filmstrip projectors, individual viewers, and cassette players and records. I find that many teachers for the first time have discovered that these aids are a necessary part of the English classroom. They are experimenting more with learning strategies as highlighted in some inservice workshops.

Learning strategies expanded to benefit all subject areas included laboratory techniques; exploratory, open-ended investigations; and aural-oral and audiolingual-visual methods. In many schools instruction was moving from a structured learning process to firsthand experience and discovery. One State's comprehensive "Design for Education" provided for "learning opportunities for self-expression and the building of sensitivity and perception." The design set forth a plan to help schools initiate programs in which each student could develop the ability to clarify the attitudes and values which guide his behavior; seek information independently; analyze and apply critical thinking to social problems; concern himself with the welfare of others; and relate to the aesthetic factors in his environment. The traditional "listening, sitting, and reading" classrooms were giving way to diversified student work areas, supplied with multimedia equipment and materials. Teachers were being prepared for their new roles as facilitators and guides in the learning process, assisting students in setting their own goals, weighing and pursuing alternatives, and evaluating outcomes.

Conceptual learning was superseding rote learning. Teachers and students no longer had to depend upon a single textbook, but were learning to use, and even design, a great variety of educational aids. In one State inservice program, more than 800 elementary school teachers were trained in the use of manipulative materials, in keeping with the new emphasis on active and multisensory learning in the early years.

Both materials and methods were changing to provide for greater pupil responsibility, motivation, and commitment. Reading machines, for example, allowed pupils in many schools to work by themselves and progress at individual rates. Language development equipment made possible both aural and visual presentation of materials, and allowed each pupil to compare his pronunciation of words with a correct example and to reinforce his vocabulary. One State reported that such equipment was of great help to students who had entered the upper elementary grades with speech deficiencies. Children attending first grade whose visual acuity was not completely developed profited by practice with materials reproduced in the same lettering type as their basic readers. These materials also lessened the visual stress experienced by all young children in reading.

**Curriculum Expansion and Improvement**

All States reported efforts to move from traditional to new and innovative curriculums, developed both nationally and locally. Many schools adopted student-centered curriculums, emphasizing freedom and responsibility through reasoned decisionmaking. Some implemented the quarter system, thus providing for a wider choice of courses. Others reorganized to include such approaches as team teaching and more flexible scheduling.

One statewide comprehensive program was revised to include measurable objectives in each of the academic subject areas. The entire program of instruction in grades 1–12 was restructured so that concepts determined which facts were taught instead of the reverse, as in traditional social studies courses.

The addition of new programs offered wider choices to more students. In industrial arts, middle school students in one city were introduced for the

first time to a course in basic electricity, and senior high school students were given the opportunity to engage in explorational activities in basic electronics. In other cities, industrial arts moved from vocation-oriented, outdated "woodworking" to more relevant courses in basic electronics, graphic communication, architectural and pre-engineering drawing, metal-working, plastics, power mechanics, and the like.

The effort to encourage children to use reading as a means of uncovering and exploring interests in various content areas helped to overcome the irrelevance of many traditional readers, and at the same time made great demands on a wide variety of materials, especially at the elementary grade levels.

In mathematics, the focus on process rather than product necessitated inclusion of a wide variety of materials and devices for developing concepts. Using such devices as geoboards, cuisenaires, measuring and weighing instruments, and counters of every shape and size, instruction began with the assumption that computation, which had in the past dominated mathematics programs, is only a final stage in the grasping of more abstract relationships and patterns in numbers.

An increasing number of schools reported using computerized courses in mathematics. One State reported that it was not uncommon to find a computer or computer terminal in many of its high schools. These computers ranged from very small types with limited storage and decisionmaking capabilities to some which were quite sophisticated.

Where schools were not able to implement complete revision of their science programs, they attempted, at the secondary level at least, to integrate laboratory learning experiences into traditional programs. Some schools were able to develop special science projects, such as a cooperative undertaking by science and other subject area specialists encouraging teachers to incorporate into existing courses and into student activities topics related to the peaceful uses of the atom. Even in elementary science programs, the trend was toward new curriculums stressing concepts, processes, procedures, and investigations.

Likewise, social studies were influenced by more than 50 major curriculum development projects reflecting nationwide emphasis on inquiry skills and value clarification. In school systems of several States new programs were added dealing specifically with histories of minority groups. In some cases, entire programs were revamped to include human relations education and the history of minorities as an integral part of the grades K–12 social studies sequence.

A new emphasis was also given to studies concerned with the environment. Interdisciplinary materials were used to study the problems of the environment from scientific, social, political, and economic viewpoints.

Enrollments in new courses were increasing in most States, in some courses dramatically. In earth science classes in one State, enrollments rose in 4 years from less than 17,000 students at all levels to more than 46,000 students. In another, the enrollments in secondary level earth science increased from 7,395 in 1968–69 to 14,678 in 1969–70. More interest was evident in the study of modern languages, as well. One State reported a 100-percent increase in 1 year in the number of students of French taking part in the State French symposium, and most of the others reported larger enrollments and more schools offering language study. In several instances, the number of students electing foreign languages was growing faster than the school population.

The long sequential study of foreign languages was stressed, up to 6 years in a large number of States, and up to the ideal 10-year sequence when coordinated with university and college programs. One State reported that every one of its students had a choice of at least two languages and, in most cases, four. In nearly all schools these were available in a 6-year sequence of study. In addition to French, German, Italian, Latin, Spanish, and Russian, courses in Hebrew, Polish, Chinese, Japanese, Portuguese, and Swahili were also offered. Only two of its comprehensive secondary schools did not offer language study, but these were junior high schools which fed into high schools where there were such courses. At least one country vocational-technical school in the State offered a foreign language. Another State, with a history of long sequences of language study, was planning advanced classes of history, geography, and other humanities to be taught in the target language. Sequences were also applied to the other subject areas. For example, 5 percent of the school districts in one State required at least 3-year sequences in social studies.

There were notable increases in enrollments in mathematics, including advanced classes. One State reported that an enrollment of 2,748 students in computer mathematics courses rose in 1 year to 7,037 due to the acquisition of more computer facilities in secondary schools. A cost-effective computer mathematics self-instruction program was developed and evaluated in one region of this State, with 250

students from eight high schools participating in a semester course.

The establishment of new industries in one area created a demand for more well-trained personnel, and the school system expanded its laboratory facilities to meet increased enrollments in secondary academic and vocational science courses. Most States' reports, however, cited the improvements in content and method of instruction as the primary stimulus for growth in enrollments.

To the extent their resources allowed, schools not only offered more courses, but expanded such areas as languages and social studies to include lower grades. The adoption of new curriculums and the enrollment of increased numbers of students in innovative courses was inevitably paced by the acquisition of electronic classrooms, fixed and mobile laboratories, resource centers, learning centers, study carrels, open-room settings, planetariums, television systems, dial-access electronic information systems, computers, media centers, and a wealth of other equipment and materials.

**Student Achievement**

Some States reported that student achievement was adversely affected by the decrease in the number of schools participating in the title III–A program because of late funding. Nevertheless a number of States found their students entering institutions of higher education better prepared than in former years. Many reported a consensus among their educators regarding the value of skilled use of equipment and materials. These experts agreed that access to multimedia by both teachers and students set the stage for individualized instruction, programed study, and expanded and new curricular choices, and that students with these opportunities were likely to have more meaningful learning experiences, as well as greater motivation and competence. In some cases, evaluative procedures reinforced these beliefs.

Increasing numbers of foreign language students in one State were able to meet all or part of the foreign language requirements in colleges and universities by means of placement testing. Advanced enrollments in third-, fourth-, and fifth-year courses reached their greatest number in the history of the State.

Participation in one State's foreign language contests increased, and 12 winners received paid study trips to Canada. Nationwide, more than 1,200 students participated in the National French Contest sponsored by the American Association of Teachers of French, many of them placing in the top 5 percentile. In one city 30 students received prizes in contests sponsored by the Association of Teachers of French, German, Italian, and Spanish.

Increased familiarity with equipment and materials used in new mathematics programs was evident in students who participated in the Governor's honors program conducted in one of the States each summer for 400 high school juniors and seniors. In another State participation of schools in mathematics contests was nearing 100 percent. A greater number of students also received higher scores on statewide tests than ever before.

The objective of one high school English project was to provide remedial opportunities for students deficient in reading and writing skills. A laboratory equipped with recording and responding capabilities, overhead projectors, slide projectors, 16mm. sound projectors, and specially designed carrels was implemented by teacher specialists teams. Evaluation studies showed improved performance on standardized tests, higher functional level of verbalization, increased attention span, higher level of achievement, increased occupational desires, and lower truancy rates among students using the laboratory.

In another school district a reading project provided needed multimedia resources to facilitate independent research on the part of each student. Activities included independent study, classroom presentations, small-group discussions, and committee functions. The project provided students with new and challenging multimedia materials so presented as to deepen their understanding of and appreciation for reading. The result was a steady and dramatic improvement in their median reading scores.

Statistical procedures on a computer facility were applied in the evaluation of the progress and achievements of junior college students in biology courses. A group in an audio-tutorial program was compared with a group in a traditional program at another college in the same district. The percentage of students in the audio-tutorial program whose work was above average was 62.7 compared with the percentage in the traditional program, which was 23.6.

In one State, numerous evaluations were made of the effect of specific materials and equipment on learning. For example, experimental and control groups, grades K–12, were pretested and posttested in English as a second language; the group using the given equipment made more significant improvements than the control group.

In a reading project, tests showed that two-thirds

of the experimental group advanced more than two grade levels in vocabulary, speed, and comprehension. An industrial arts project measured student achievement against prestated objectives, which had established levels of performance. These levels proved to be attainable through the use of special materials purchased through title III–A funds.

One school district reported that the simple act of making dictionaries available to all high school students resulted in noticeable improvement in spelling, vocabulary, and written work. Another stated that students in reading programs using enriched materials and equipment showed positive changes in their behavior and learning patterns, including grade-level growth, willingness to attend reading classes, requests by both parents and students for aid from Reading Center personnel, and advice for application of reading techniques to other subject areas.

An adult education program for underachievers in high school science, English, civics, reading, and American history used audiovisual equipment and materials obtained through title III–A funds, thereby developing basic skills and increasing student interest and participation.

An audiovideo information retrieval system using telephones, prerecorded videotapes and audiotapes, films, filmstrips, slides, and records to disseminate information throughout elementary schools was established by a county board of education. A curriculum was then developed, utilizing educational television, team teaching, and the linguistics approach to the language arts. The project was evaluated at the end of the first year, which proved to be early for judging implementation of the innovative curriculum. However, national achievement tests revealed that the experimental group in reading and language made significant gain over the control group. Similar differences occurred between mathematics groups.

**Exemplary Projects**

Hundreds of projects making intelligent use of modern equipment, materials, and techniques have improved the learning conditions of countless students. A few examples are described.

A modern foreign language department in a secondary school offered students a choice of French, Spanish, German, or Russian. The use of the aural-oral approach gave students opportunities for self-pacing, oral practice, and enrichment. With the aid of new equipment, more students engaged in self-help activities and more enrolled in advanced placement courses, pursuing independent study projects.

A multimedia approach to reading instruction provided each child with the most appropriate medium for development of skills and concepts. Methods and procedures were chosen to emphasize a stimulating environment for student motivation. Enrichment activities were incorporated into the existing school program.

The socioeconomic and cultural backgrounds of the majority of the students in an inner city senior high school left them uninterested in college preparatory, general education, or occupational education programs. A functional and varied industrial arts program, different from that offered in the junior high schools of that city, was designed to motivate these students and to broaden and enrich their educational experiences.

A mathematics project utilized an electronic classroom and study carrels, using both teacher-prepared and commercially-prepared tapes and programs. Problem-solving techniques employed a calculator, a textbook and worksheets, and a program called Flow Chart Machine Mathematics, especially chosen to motivate average and below-average students.

The objective of one project was to facilitate learning in a world of rapidly growing technology by aiding visualization of curriculum topics. A 24-foot-diameter dome and coved lighting system was the setting for a planetarium instrument which projected the natural sky from any point on earth at any time period both past and future within 50,000 years from the present. Students were able to coordinate the projected sky with ancillary demonstrations on a laboratory table. A device was integrated with the projector so that it could be lowered to facilitate better observation of the table. The coved lighting system incorporated with the dome provided classroom illumination during the demonstrations.

A microfilm media center stored information in a way accessible to the pupil, thus adding a new dimension to existing research and individual study tools. The objective was to stimulate reading, research, and understanding of published ideas in media other than standard textbook and library reference books. The availability of microfilm equipment served to increase stored information, cross-indexed to facilitate access to publications. This helped to maintain student interest by eliminating the necessity of searching through countless printed materials.

A State education agency produced 17 15-minute videotapes for weekly broadcasts to students, teachers, and the general public. The broadcasts provided background information on the progress of the dele-

gates at a State constitutional convention. The studio coordinator had access to all general and committee sessions of the convention. He also contacted officers and delegates for information and interviewed them during appearances on the programs. The series was designed for secondary school students but it also proved useful for upper elementary social studies classes and for adults.

A pilot program for a conventional elementary district developed a Learning Resources Center, in which both students and teachers in all subject areas had the use of audiovisual equipment and materials, supplementary and manipulative materials, work areas, and study facilities. Excellent inservice preparation of the teachers and extensive procedures for selection of materials required involvement of instructional personnel to a greater degree than ever before. The use of the facility for direct instructional purposes grew rapidly.

A high school project was designed to make the teaching of English relevant to student needs. Three basic program features were developed around behavioral objectives. First, minimal levels of competency were established. Upon achieving the minimal competencies, students elected a series of choices to develop the use of these competencies. Independent study units developed jointly by the teacher and the student followed. Equipment, materials, and minor remodeling helped to implement this project.

Industrial arts education in one high school had been limited to the teaching of woodworking and some drafting. This was expanded by a project which included remodeling of existing facilities and equipping them for instruction in drafting, metalwork, power mechanics, and woods. Individualized instruction, the expanded program, and modern facilities improved the morale of both students and teachers.

Reception television equipment was installed in several schools of a major city to improve the instructional program at the secondary level by providing educational materials not otherwise available, to improve inservice and staff development, and to provide technical production experience for students in the high schools and community colleges. During the first year of operation more than 200 programs were presented in such subjects as art, health, English, German, French, mathematics, science, and Spanish.

## EVALUATION

NDEA title III–A regulations require State education agencies to conduct an annual administrative review and evaluation of the program to determine its status in terms of objectives. Few of the 53 annual reports for fiscal year 1970 indicated formal evaluation studies; States cited time and fiscal constraints imposed by late funding as major obstacles to an effective evaluation program during fiscal year 1970.

State department staff know that many improvements would not and could not have occurred without the assistance of title III–A funding; at the same time they find it difficult to single out specific enrollment or achievement gains attributable to title III–A alone. The program's contribution is generally intermingled with a complex of planning, innovation, acquisition, inservice development, utilization, and other factors which stimulate and motivate both teachers and students.

Several States included with their reports evaluative statements from local education agencies. Although objective data were not always available to support their opinions, local school personnel felt that equipment made available through the title III–A program had accelerated the transition from traditional to newer methods of instruction. More effective and meaningful instructional programs were indicated in all local statements. The widespread acceptance of and enthusiasm for title III–A at the local level gives the program its continued status.

One State reported that its evaluation procedures were largely informal. As in some other States, program activities in which evaluation was an integral part were processing and evaluating project applications, monitoring completed projects, planning projects with local systems, developing educational specifications for school plant construction, taking part in comprehensive surveys of local systems, and participating in local system annual evaluation sessions (team visits). The staff spent approximately 25 percent of its time in some form of evaluation.

Other States reported that evaluation was mostly done in the form of consultant services to local school systems. In one State, subjective evaluation studies were made by members of the mathematics staff when they were involved in evaluation of schools for both State and regional accreditation.

Three States indicated future evaluation plans. One of these States is in the process of setting up a statewide evaluation program which will include title III–A. Another has proposed that its new program document on operation procedures require built-in methods of assessment as part of the local application. Intuitive judgments convince the staff that the program has been effective, but they feel

that more quantitative measures of the degree of this effectiveness are needed. In connection with its efforts under section 402 and ESEA title III, a third State plans for local districts to conduct needs assessments. The LEA's can then initiate programs of systematic planning for improvement of total educational programs and the most efficient and effective ways to utilize all Federal funds to improve instruction to meet the needs of all students. State personnel believe that materials and equipment will be a vital element in school plans for implementation of new programs, for improving established programs, and for program evaluation. NDEA title III–A funds will assist in providing these materials and equipment.

Title III–A was included in a survey conducted by the Nebraska State Department of Education to determine the nature and extent of public school participation in federally financed programs. Pennsylvania reported academic studies as follows: *Evaluation of Pennsylvania Nuclear Science Program, 1969–1970; Evaluation of Science for Non-Science Majors; Survey of High School Planetaria;* and *Elementary School Mathematics: A Status Report*. The last is a summary of the PRIMES (Pennsylvania Retrieval of Information for Mathematics Education System) annual elementary school mathematics curriculum survey.

*Planning Report: Assessment of Education Needs, March 1970,* reported by Delaware, has significance for the title III–A program in that it gives State and local education leaders a sounder basis for meeting identified needs. Kentucky reported on an evaluation of its Taylor County Audiovisual Information Retrieval System, and in Guam, three academic area studies were completed during fiscal year 1970. A positive appraisal of the title III–A program was reported by Missouri from *A Study of the Financial Effects of Selected Titles of Public Laws 85-864* and *89-10 in Selected Schools of the State of Missouri.*[1]

Indepth evaluation studies accompanied annual reports from two States:

*California*

Robert D. Welty, "Evaluation of Changes Resulting from National Defense Education Act Projects—A Pilot Study," unpublished, California State Department of Education, Sacramento, 1970.

[1] William P. McDaniel, Principal, Lemasters Elementary School, Riverview Gardens, St. Louis County, Mo., a doctoral dissertation for the Graduate School of the University of Missouri, Columbia, 1969.

Background: Since 1958 the Bureau of National Defense Education Act Administration of the California State Department of Education has initiated several studies to evaluate the success of NDEA projects:

1963—The Dynamics of Educational Change
1967—The Impact in California of NDEA, Titles III, V, and VIII
1968—A Study of the Bureau of NDEA Administration
1969—NDEA, Change Agent for Education
1969—A Plan for the Development of an Evaluation Program for NDEA Title III Projects

Each of these studies has contributed information which indicated that in California, NDEA was exerting a positive influence on many educational programs. The latter 1969 study dealing with the development of an evaluation program offered several recommendations, the implementation of which is the subject of this report. Boothe Resources International, Inc., conducted the 1969 study.

Purpose: Three goals were established:

1. Provide information which results in improved NDEA services.
2. Provide information which in turn can be used to develop procedures for a study of future projects.
3. Provide data for an evaluation report for presentation to the legislative analyst.

Objective: The primary objective was to implement recommendations from the Boothe Study. These recommendations included the following:

A. Use the influence of the administrative consultant, not threats of withholding Federal funds, to obtain a completed evaluation form from each education agency.

B. Provide an evaluation form for each project, to be submitted annually by each education agency receiving funds.

C. Establish a procedure for interviewing education agencies which have conducted projects, selecting them by both a random sample and a consultant-selected sample, on a longitudinal evaluation basis.

D. Assign one consultant to compile the report for the legislative analyst's office, using the evaluation reports submitted by the education agencies and the interview forms completed by other consultants.

Procedures: One hundred districts were asked to participate in the study. Each of eight geographic areas served by consultants was represented in the sample. The number of projects studied in each area was determined on a pro rata basis.

From 2,209 projects submitted, 100 were selected for inclusion in the sample. The final sample included: 25 elementary projects, 18 secondary projects, 49 unified projects, nine junior college projects, and three county schools projects. (The total number exceeded the expected 100.) Four other districts requested to be included because of evaluation work they wished to share.

Findings:

1. Local education agencies are willing to follow a plan of evaluation. Being accountable for money spent does not cause them to withdraw from use of National Defense Education Act Administration (NDEAA) funding.
2. Districts have a high level of acceptance to being asked to evaluate. The pilot study did not reveal any significant resistance to this request.
3. Telephoning districts prior to mailing evaluation requests consumes more time than is practical. Mailing information is apparently all that is required to secure cooperation.
4. The pilot revealed that districts are using research designs which give usable data. The problem is one of determining how to standardize reporting. Districts can incorporate the evaluations of other projects into NDEA evaluations. It appears that it is possible to isolate the value of NDEA funding even with a commingling of various funds into one project.

Recommendations:

1. Federal funding, new trends in accountability, community demands, legislative mandates, and other factors at work in the education field cause districts to anticipate being accountable for products from funds expended. NDEAA should continue evaluation.
2. The acceptance of this evaluation effort was due largely to fine public relations built up over the years. This superior image enjoyed by NDEAA in the field can be utilized to implement new systems of evaluation successfully.
3. All districts should be informed through regional meetings and mailings that evaluation will be conducted. Applications and manuals should contain information relative to future evaluation.
4. Sample designs for evaluation should be provided. The application and guidelines should clearly state the need for evaluation designs which can be easily measured.

*Wisconsin*

William C. Kahl, *Evaluation Survey—NDEA Title III, FY 1970*, Wisconsin Department of Public Instruction, Madison.

Purpose: To determine the importance and effectiveness of Federal funding as provided by NDEA title III–A to local school districts in Wisconsin.

Procedures: During fiscal year 1969 a survey of all LEA's was conducted and a summary of results published in the March 1969 issue of *The Superintendent's Newsletter*. The 1968 study was followed up in 1969 by a survey of a random sample of 20 percent of the school districts in Wisconsin. An analysis, *Evaluation Survey, NDEA Title III 1969*, was published and distributed to all school districts. During the summer of 1970 approximately 12 percent of all districts submitting 1969 projects under NDEA title III were visited by NDEA staff members who conducted interview-surveys designed to determine the impact on local school districts of title III–A funds. This report presents an analysis of the results.

Findings:

1. Reporting administrators indicated that 41 out of 45 teachers contributed more than 50 percent of the effort to develop NDEA local plans.
2. The survey indicated a direct relationship between the credited impact of title III–A on the achievement of stated instructional goals and the degree of teacher involvement in developing local NDEA plans and lists of acquisitions.
3. Administrators indicated a balance of needs among inservice education, acquisition of equipment, and acquisition of materials when rankir them as future educational needs of their school systems.
4. The survey shows that administrators support the present title III–A program. Of 45 responding administrators, 23 indicated that they support the idea of setting aside title III–A funds to support special projects.
5. All of the critical title III–A subject areas received support from NDEA funds in Wisconsin during fiscal year 1969.
6. Title III–A, as administered in Wisconsin during the past decade, is well accepted by the local education agencies of the State.

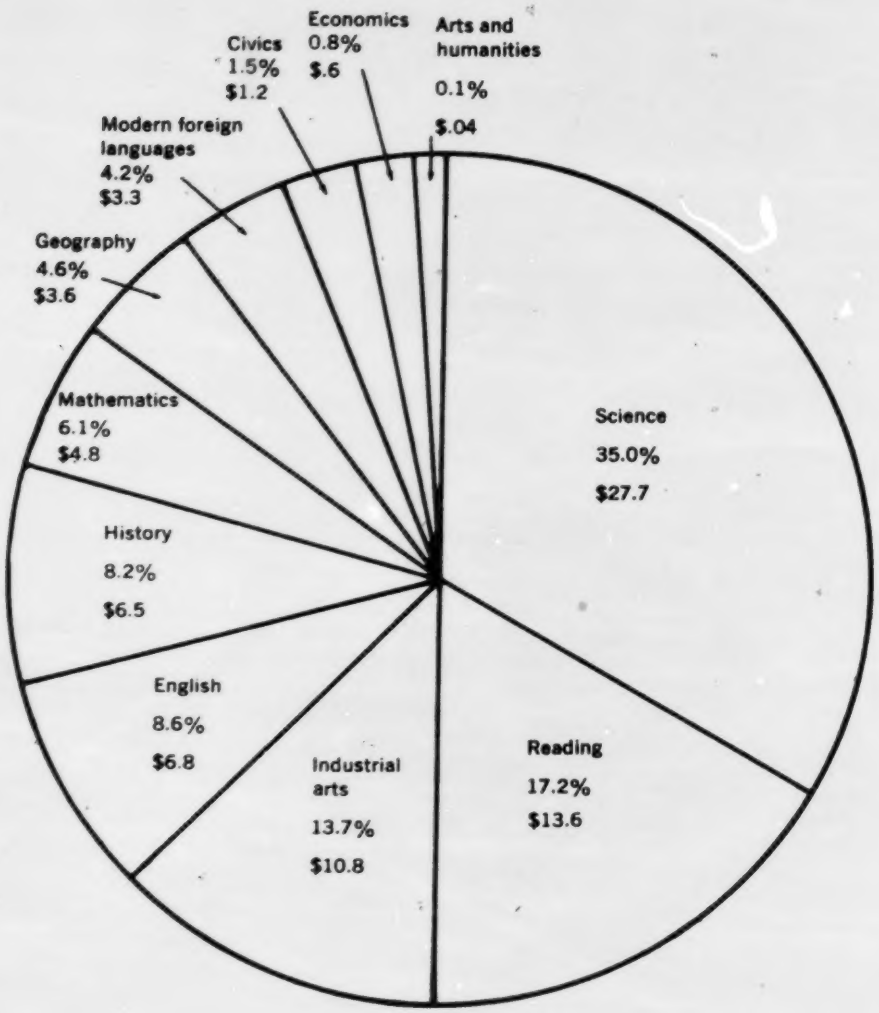
Recommendations:

1. Title III–A should be continued substantially as administered in the past. Administrators' support indicates that further consideration should be given to the concept of special projects to complement the basic title III–A acquisition program.
2. There is a need for continued and improved evaluation techniques and procedures for determining the extent to which title III–A is achieving its stated objectives.
3. Funding earlier in the year is needed to permit better planning and greater utilization of acquisition funds.

**Data on Fund Sources and Expenditures**

Figure 3 and the tables which follow (15–18) show the sources and uses by the States of funds in the

FIGURE 3.—Distribution of funds under NDEA title III, part A, by subject, in percentages and in millions of dollars: Fiscal year 1970



## Table 15.—Sources of funds, by States and other areas, for purposes of NDEA title III, part A: Fiscal year 1970

| State or other area | Federal allotment | Amount spent from Federal allotment | Percent of allotment | Amount spent | Expenditures from Appalachian Regional Development Act funds | Total | Federal percent of total | State and local percent of total | Appalachian Act percent of total |
|---|---|---|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| Total | $34,679,000 | $32,030,939 | 92.4 | $46,750,078 | $550,415 | $79,331,432 | 40.4 | 58.9 | 0.7 |
| Alabama | 851,705 | 846,705 | 99.4 | 846,705 | ..... | 1,693,410 | 50.0 | 50.0 | .. |
| Alaska | 52,995 | 52,995 | 100.0 | 53,000 | ..... | 105,995 | 50.0 | 50.0 | .. |
| Arizona | 366,650 | 366,076 | 99.8 | 366,076 | ..... | 732,152 | 50.0 | 50.0 | .. |
| Arkansas | 448,166 | 448,166 | 100.0 | 463,008 | ..... | 911,174 | 49.2 | 50.8 | .. |
| California* | 2,580,066 | 2,580,066 | 100.0 | 2,611,214 | ..... | 5,191,280 | 49.7 | 50.3 | .. |
| Colorado | 383,233 | 383,233 | 100.0 | 708,248 | ..... | 1,091,481 | 35.1 | 64.9 | .. |
| Connecticut | 336,161 | 336,161 | 100.0 | 730,994 | ..... | 1,067,155 | 31.5 | 68.5 | .. |
| Delaware | 82,557 | 82,557 | 100.0 | 82,557 | ..... | 165,114 | 50.0 | 50.0 | .. |
| District of Columbia | 83,393 | 83,393 | 100.0 | 121,353 | ..... | 204,746 | 40.7 | 59.3 | .. |
| Florida | 1,059,430 | 1,059,430 | 100.0 | 2,313,118 | ..... | 3,372,548 | 31.4 | 68.6 | .. |
| Georgia | 999,405 | 748,530 | 74.9 | 674,881 | 73,649 | 1,497,060 | 50.0 | 45.1 | 4.9 |
| Hawaii | 148,958 | 148,958 | 100.0 | 487,037 | ..... | 635,995 | 23.4 | 76.6 | .. |
| Idaho | 163,334 | 163,334 | 100.0 | 163,334 | ..... | 326,668 | 50.0 | 50.0 | .. |
| Illinois | 1,445,776 | 1,445,776 | 100.0 | 6,317,972 | ..... | 7,763,748 | 18.6 | 81.4 | .. |
| Indiana | 889,093 | 889,093 | 100.0 | 889,093 | ..... | 1,778,186 | 50.0 | 50.0 | .. |
| Iowa | 486,312 | 486,312 | 100.0 | 1,998,084 | ..... | 2,484,396 | 19.6 | 80.4 | .. |
| Kansas | 415,179 | 415,179 | 100.0 | 465,190 | ..... | 880,369 | 47.2 | 52.8 | .. |
| Kentucky | 697,959 | 333,298 | 47.8 | 333,299 | ..... | 666,597 | 50.0 | 50.0 | .. |
| Louisiana | 912,117 | 600,053 | 65.8 | 600,054 | ..... | 1,200,107 | 50.0 | 50.0 | .. |
| Maine* | 194,993 | 192,848 | 98.9 | 192,848 | ..... | 385,696 | 50.0 | 50.0 | .. |
| Maryland | 607,549 | 607,395 | 100.0 | 585,495 | 21,900 | 1,214,790 | 50.0 | 48.2 | 1.8 |
| Massachusetts | 722,123 | 722,123 | 100.0 | 1,046,243 | ..... | 1,768,366 | 40.8 | 59.2 | .. |
| Michigan | 1,553,289 | 1,553,289 | 100.0 | 3,193,844 | ..... | 4,747,133 | 32.7 | 67.3 | .. |
| Minnesota* | 719,373 | 719,373 | 100.0 | 736,847 | ..... | 1,456,220 | 49.4 | 50.6 | .. |
| Mississippi | 596,634 | 492,873 | 82.6 | 399,952 | 92,920 | 985,745 | 50.0 | 40.6 | 9.4 |
| Missouri | 772,977 | 771,689 | 99.8 | 1,214,984 | ..... | 1,986,673 | 38.8 | 61.2 | .. |
| Montana | 152,595 | 152,595 | 100.0 | 161,031 | ..... | 313,626 | 48.7 | 51.3 | .. |
| Nebraska | 258,291 | 258,291 | 100.0 | 258,291 | ..... | 516,582 | 50.0 | 50.0 | .. |
| Nevada | 61,619 | 55,786 | 90.5 | 58,481 | ..... | 114,267 | 48.8 | 51.2 | .. |
| New Hampshire | 118,824 | 36,262 | 30.5 | 37,104 | ..... | 73,366 | 49.4 | 50.6 | .. |
| New Jersey | 863,566 | 863,566 | 100.0 | 2,231,646 | ..... | 3,095,212 | 27.9 | 72.1 | .. |
| New Mexico | 273,046 | 41,085 | 15.0 | 42,761 | ..... | 83,846 | 49.0 | 51.0 | .. |
| New York | 1,928,151 | 1,928,151 | 100.0 | 1,928,151 | ..... | 3,856,302 | 50.0 | 50.0 | .. |
| North Carolina | 1,130,562 | 671,880 | 59.4 | 740,761 | 43,507 | 1,456,148 | 46.1 | 50.9 | 3.0 |
| North Dakota | 146,026 | 146,026 | 100.0 | 299,899 | ..... | 445,925 | 32.8 | 67.2 | .. |
| Ohio | 1,870,951 | 1,870,951 | 100.0 | 1,780,205 | 127,852 | 3,779,008 | 49.5 | 47.1 | 3.4 |
| Oklahoma | 466,563 | 466,563 | 100.0 | 531,304 | ..... | 997,867 | 46.8 | 53.2 | .. |
| Oregon | 338,665 | 338,665 | 100.0 | 1,241,420 | ..... | 1,580,085 | 21.4 | 78.6 | .. |
| Pennsylvania | 1,796,266 | 1,796,266 | 100.0 | 1,796,266 | ..... | 3,592,532 | 50.0 | 50.0 | .. |
| Rhode Island | 125,274 | 125,274 | 100.0 | 166,513 | ..... | 291,787 | 42.9 | 57.1 | .. |
| South Carolina | 658,416 | 541,601 | 82.3 | 554,727 | 84,043 | 1,180,371 | 45.9 | 47.0 | 7.1 |
| South Dakota* | 151,605 | 106,123 | 70.0 | 106,123 | ..... | 212,246 | 50.0 | 50.0 | .. |
| Tennessee | 837,746 | 705,821 | 84.3 | 599,277 | 106,544 | 1,411,642 | 50.0 | 42.5 | 7.5 |
| Texas | 2,326,392 | 2,153,541 | 92.6 | 2,153,541 | ..... | 4,307,082 | 50.0 | 50.0 | .. |
| Utah* | 266,267 | 256,681 | 96.4 | 256,681 | ..... | 513,362 | 50.0 | 50.0 | .. |

**Table 15.—Sources of funds, by States and other areas, for purposes of NDEA title III, part A: Fiscal year 1970—Continued**

| State or other area | Federal allotment | Amount spent from Federal allotment | Percent of allotment | Amount spent | Expenditures from Appalachian Regional Development Act funds | Total | Federal percent of total | State and local percent of total | Appalachian Act percent of total |
|---|---|---|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| Vermont | $ 82,130 | $ 23,136 | 28.2 | $ 23,983 | ..... | $ 47,119 | 49.1 | 50.9 | .. |
| Virginia | 882,413 | 788,078 | 89.3 | 794,527 | ..... | 1,582,605 | 49.8 | 50.2 | .. |
| Washington | 520,831 | 520,831 | 100.0 | 899,755 | ..... | 1,420,586 | 36.7 | 63.3 | .. |
| West Virginia | 389,684 | 365,452 | 93.8 | 365,453 | ..... | 730,905 | 50.0 | 50.0 | .. |
| Wisconsin | 781,646 | 781,646 | 100.0 | 1,628,503 | ..... | 2,410,149 | 32.4 | 67.6 | .. |
| Wyoming | 66,403 | 51,654 | 77.8 | 51,654 | ..... | 103,308 | 50.0 | 50.0 | .. |
| American Samoa | 42,500 | 0 | .... | 0 | ..... | 0 | ... | ... | .. |
| Guam | 42,500 | 42,500 | 100.0 | 42,500 | ..... | 85,000 | 50.0 | 50.0 | .. |
| Puerto Rico | 403,132 | 328,779 | 81.6 | 360,033 | ..... | 688,812 | 47.7 | 52.3 | .. |
| Trust Territory of the Pacific Islands | 42,500 | 0 | .... | 0 | ..... | 0 | ... | ... | .. |
| Virgin Islands* | 42,500 | 42,330 | 99.6 | 44,058 | ..... | 86,388 | 49.0 | 51.0 | .. |
| Bureau of Indian Affairs | 42,500 | 42,500 | 100.0 | 0 | ..... | 42,500 | 100.0 | 0 | .. |

*Estimate.

NOTE: American Samoa and the Trust Territory did not participate in fiscal year 1970.

**Table 16.--Use of funds under NDEA title III, part A, by object and by States and other areas: Fiscal year 1970**

| State or other area | Acquisition of equipment and materials | Minor remodeling | Total |
|---|---|---|---|
| (1) | (2) | (3) | (4) |
| Totals | $78,031,050 | $1,300,050 | $79,331,432 |
| Alabama | 1,693,410 | 0 | 1,693,410 |
| Alaska | 105,995 | 0 | 105,995 |
| Arizona | 722,721 | 9,431 | 732,152 |
| Arkansas | 911,174 | 0 | 911,174 |
| California* | 5,154,941 | 36,339 | 5,191,280 |
| Colorado | 1,088,466 | 3,015 | 1,091,481 |
| Connecticut | 1,067,155 | 0 | 1,067,155 |
| Delaware | 165,114 | 0 | 165,114 |
| District of Columbia | 204,746 | 0 | 204,746 |
| Florida | 3,372,548 | 0 | 3,372,548 |
| Georgia | 1,497,060 | 0 | 1,497,060 |
| Hawaii | 635,995 | 0 | 635,995 |
| Idaho | 323,550 | 3,118 | 326,668 |
| Illinois | 7,424,702 | 339,046 | 7,763,748 |
| Indiana | 1,773,446 | 4,740 | 1,778,186 |
| Iowa | 2,484,396 | 0 | 2,484,396 |
| Kansas | 880,369 | 0 | 880,369 |
| Kentucky | 663,204 | 3,393 | 666,597 |
| Louisiana | 1,200,107 | 0 | 1,200,107 |
| Maine* | 383,382 | 2,314 | 385,696 |
| Maryland | 1,214,790 | 0 | 1,214,790 |
| Massachusetts | 1,743,344 | 25,022 | 1,768,366 |
| Michigan | 4,468,210 | 278,923 | 4,747,133 |
| Minnesota* | 1,456,220 | 0 | 1,456,220 |
| Mississippi | 983,869 | 1,876 | 985,745 |
| Missouri | 1,986,673 | 0 | 1,986,673 |
| Montana | 301,437 | 12,189 | 313,626 |
| Nebraska | 516,582 | 0 | 516,582 |
| Nevada | 114,267 | 0 | 114,267 |
| New Hampshire | 43,886 | 29,480 | 73,366 |
| New Jersey | 2,872,173 | 223,039 | 3,095,212 |
| New Mexico | 83,846 | 0 | 83,846 |
| New York | 3,798,254 | 58,048 | 3,856,302 |
| North Carolina | 1,456,148 | 0 | 1,456,148 |
| North Dakota | 445,925 | 0 | 445,925 |
| Ohio | 3,754,290 | 24,718 | 3,779,008 |
| Oklahoma | 996,929 | 938 | 997,867 |
| Oregon | 1,570,062 | 10,023 | 1,580,085 |
| Pennsylvania | 3,592,532 | 0 | 3,592,532 |
| Rhode Island | 291,787 | 0 | 291,787 |
| South Carolina | 1,144,886 | 35,485 | 1,180,371 |
| South Dakota* | 212,246 | 0 | 212,246 |
| Tennessee | 1,411,642 | 0 | 1,411,642 |
| Texas | 4,266,596 | 40,486 | 4,307,082 |
| Utah* | 506,688 | 6,674 | 513,362 |
| Vermont | 47,119 | 0 | 47,119 |
| Virginia | 1,582,605 | 0 | 1,582,605 |
| Washington | 1,420,586 | 0 | 1,420,586 |
| West Virginia | 730,905 | 0 | 730,905 |
| Wisconsin | 2,394,084 | 16,065 | 2,410,149 |
| Wyoming | 103,308 | 0 | 103,308 |
| Guam | 85,000 | 0 | 85,000 |
| Puerto Rico | 552,792 | 136,020 | 688,812 |
| Virgin Islands* | 86,388 | 0 | 86,388 |
| Bureau of Indian Affairs | 42,500 | 0 | 42,500 |

*Estimate.

## Table 17.—Distribution of funds under NDEA title III, part A, by subject and by States and other areas: Fiscal year 1970

| State or other area | Science | Percent | Mathematics | Percent | History | Percent | Civics | Percent | Geography | Percent | Economics | Percent | Modern foreign languages | Percent |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) |
| Totals | $27,728,463 | 35.0 | $4,860,372 | 6.1 | $6,518,075 | 8.2 | $1,229,539 | 1.5 | $3,653,117 | 4.6 | $604,771 | 0.8 | $3,322,463 | 4.2 |
| Alabama | 458,121 | 27.1 | 114,939 | 6.8 | 234,350 | 13.8 | 22,048 | 1.3 | 56,266 | 3.3 | 7,223 | 0.4 | 26,794 | 1.6 |
| Alaska | 5,267 | 5.0 | 39,305 | 37.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Arizona | 224,987 | 30.7 | 72,821 | 10.0 | 39,898 | 5.5 | 7,478 | 1.0 | 40,555 | 5.5 | 147 | 0 | 14,022 | 1.9 |
| Arkansas | 443,231 | 48.6 | 42,182 | 4.6 | 58,673 | 6.4 | 2,630 | 0.3 | 17,016 | 1.9 | 508 | 0.1 | 30,265 | 3.3 |
| California* | 2,237,442 | 43.1 | 316,668 | 6.1 | 155,738 | 3.0 | 10,383 | 0.2 | 124,591 | 2.4 | 20,765 | 0.4 | 472,406 | 9.1 |
| Colorado | 299,600 | 27.5 | 152,172 | 13.9 | 114,381 | 10.5 | 14,685 | 1.3 | 72,064 | 6.7 | 4,004 | 0.4 | 57,631 | 5.3 |
| Connecticut | 413,696 | 38.8 | 55,427 | 5.2 | 104,557 | 9.8 | 10,926 | 1.0 | 39,634 | 3.7 | 0 | 0 | 62,221 | 5.8 |
| Delaware | 40,400 | 24.5 | 24,600 | 14.9 | 20,200 | 12.2 | 0 | 0 | 6,000 | 3.6 | 0 | 0 | 6,064 | 3.7 |
| District of Columbia | 32,656 | 15.9 | 18,751 | 9.2 | 6,283 | 3.1 | 4,153 | 2.0 | 8,247 | 4.0 | 6,117 | 3.0 | 33,163 | 16.2 |
| Florida | 670,506 | 19.9 | 110,272 | 3.3 | 204,936 | 6.1 | 47,603 | 1.4 | 216,262 | 6.4 | 20,549 | 0.6 | 47,157 | 1.4 |
| Georgia | 404,206 | 27.0 | 119,765 | 8.0 | 17,955 | 1.2 | 74,853 | 5.0 | 14,866 | 1.0 | 1,342 | 0.1 | 27,259 | 1.8 |
| Hawaii | 82,627 | 13.0 | 23,528 | 3.7 | 38,169 | 6.0 | 8,129 | 1.3 | 35,319 | 5.5 | 1,851 | 0.3 | 10,672 | 1.7 |
| Idaho | 103,573 | 31.7 | 13,664 | 4.2 | 30,177 | 9.2 | 6,004 | 1.8 | 16,307 | 5.0 | 0 | 0 | 4,653 | 1.4 |
| Illinois | 2,581,067 | 33.3 | 334,217 | 4.3 | 385,327 | 5.0 | 220,186 | 2.8 | 440,373 | 5.7 | 55,047 | 0.7 | 297,617 | 3.8 |
| Indiana | 324,781 | 18.3 | 42,563 | 2.4 | 62,071 | 3.5 | 3,547 | 0.2 | 49,656 | 2.8 | 1,773 | 0.1 | 85,125 | 4.8 |
| Iowa | 697,144 | 28.1 | 165,001 | 6.6 | 243,149 | 9.8 | 50,929 | 2.0 | 158,260 | 6.4 | 28,735 | 1.2 | 90,525 | 3.6 |
| Kansas | 378,226 | 43.0 | 24,341 | 2.8 | 134,004 | 15.2 | 5,783 | 0.7 | 32,716 | 3.7 | 17,016 | 1.9 | 77,832 | 8.8 |
| Kentucky | 207,097 | 31.1 | 64,443 | 9.7 | 61,079 | 9.2 | 11,794 | 1.8 | 29,781 | 4.5 | 2,140 | 0.3 | 6,205 | 0.9 |
| Louisiana | 626,556 | 52.2 | 89,874 | 7.5 | 41,104 | 3.4 | 9,394 | 0.8 | 27,324 | 2.3 | 9,170 | 0.7 | 65,618 | 5.5 |
| Maine* | 221,004 | 57.3 | 13,499 | 3.5 | 15,814 | 4.1 | 771 | 0.2 | 11,185 | 2.9 | 0 | 0 | 20,442 | 5.3 |
| Maryland | 401,255 | 33.0 | 54,262 | 4.5 | 226,833 | 18.7 | 28,741 | 2.4 | 34,878 | 2.9 | 7,847 | 0.6 | 27,812 | 2.3 |
| Massachusetts | 690,904 | 39.0 | 112,294 | 6.3 | 141,674 | 8.0 | 39,984 | 2.3 | 96,064 | 5.4 | 1,480 | 0.1 | 89,454 | 5.1 |
| Michigan | 1,697,076 | 35.7 | 212,616 | 4.5 | 413,839 | 8.7 | 80,872 | 1.7 | 306,259 | 6.5 | 43,635 | 0.9 | 155,093 | 3.3 |
| Minnesota* | 436,866 | 30.0 | 80,092 | 5.5 | 166,009 | 11.4 | 37,862 | 2.6 | 101,935 | 7.0 | 10,194 | 0.7 | 87,373 | 6.0 |
| Mississippi | 381,688 | 38.7 | 64,623 | 6.6 | 83,003 | 8.4 | 20,528 | 2.1 | 56,064 | 5.7 | 6,365 | 0.6 | 51,564 | 5.2 |
| Missouri | 698,220 | 2.7 | 117,429 | 0.4 | 229,104 | 4.7 | 47,434 | 2.4 | 93,623 | 11.5 | 8,735 | 5.9 | 52,706 | 35.2 |
| Montana | 123,420 | 39.3 | 16,577 | 5.3 | 14,253 | 4.5 | 4,425 | 1.4 | 8,287 | 2.6 | 536 | 0.2 | 5,544 | 1.8 |
| Nebraska | 310,433 | 60.1 | 35,453 | 6.9 | 31,542 | 6.1 | 17,111 | 3.3 | 37,361 | 7.2 | 8,288 | 1.6 | 19,306 | 3.7 |
| Nevada | 18,962 | 16.6 | 5,595 | 4.9 | 2,356 | 2.1 | 15 | 0 | 67,040 | 58.7 | 0 | 0 | 10,891 | 9.5 |
| New Hampshire | 49,692 | 67.7 | 2,557 | 3.5 | 8,322 | 11.4 | 74 | 0.1 | 829 | 1.1 | 0 | 0 | 529 | 0.7 |
| New Jersey | 1,472,192 | 47.6 | 149,527 | 4.8 | 221,053 | 7.2 | 18,350 | 0.6 | 90,815 | 2.9 | 6,440 | 0.2 | 169,158 | 5.5 |
| New Mexico | 13,929 | 16.6 | 1,917 | 2.3 | 9,615 | 11.5 | 0 | 0 | 0 | 0 | 0 | 0 | 538 | 0.6 |
| New York | 709,523 | 18.4 | 686,960 | 17.8 | 553,768 | 14.4 | 14,623 | 0.4 | 50,489 | 1.3 | 130,078 | 3.4 | 138,906 | 3.6 |
| North Carolina | 561,018 | 38.5 | 40,079 | 2.8 | 192,431 | 13.2 | 13,135 | 0.9 | 105,551 | 7.2 | 1,604 | 0.1 | 55,245 | 3.8 |
| North Dakota | 249,371 | 55.9 | 10,952 | 2.5 | 24,031 | 5.4 | 6,016 | 1.4 | 15,737 | 3.5 | 301 | 0.1 | 10,474 | 2.3 |
| Ohio | 963,370 | 25.5 | 217,748 | 5.8 | 386,691 | 10.2 | 56,314 | 1.5 | 112,628 | 3.0 | 37,542 | 1.0 | 127,645 | 3.4 |
| Oklahoma | 301,921 | 30.3 | 73,618 | 7.4 | 85,862 | 8.6 | 27,408 | 2.7 | 47,990 | 4.8 | 22,603 | 2.3 | 42,906 | 4.3 |
| Oregon | 384,096 | 24.3 | 69,546 | 4.4 | 228,305 | 14.4 | 76,667 | 4.9 | 133,547 | 8.4 | 55,341 | 3.5 | 50,601 | 3.2 |
| Pennsylvania | 1,794,436 | 49.9 | 248,275 | 6.9 | 240,076 | 6.7 | 9,457 | 0.3 | 146,914 | 4.1 | 2,264 | 0.1 | 137,684 | 3.8 |
| Rhode Island | 57,426 | 19.7 | 54,800 | 18.8 | 20,372 | 7.0 | 438 | 0.1 | 17,431 | 6.0 | 3 | 0 | 12,998 | 4.5 |
| South Carolina | 616,509 | 52.3 | 69,206 | 5.9 | 86,409 | 7.3 | 8,646 | 0.7 | 24,893 | 2.1 | 1,461 | 0.1 | 38,161 | 3.2 |
| South Dakota* | 121,405 | 57.2 | 1,273 | 0.6 | 22,923 | 10.8 | 212 | 0.1 | 637 | 0.3 | 0 | 0 | 4,033 | 1.9 |
| Tennessee | 674,767 | 47.8 | 84,168 | 6.0 | 68,339 | 4.8 | 2,082 | 0.2 | 95,226 | 6.7 | 48 | 0 | 51,023 | 3.6 |
| Texas | 1,545,775 | 35.9 | 225,356 | 5.2 | 400,343 | 9.3 | 43,959 | 1.0 | 170,273 | 4.0 | 19,194 | 0.5 | 219,885 | 5.1 |
| Utah* | 244,874 | 47.7 | 17,968 | 3.5 | 51,336 | 10.0 | 7,700 | 1.5 | 24,128 | 4.7 | 1,027 | 0.2 | 11,294 | 2.2 |
| Vermont | 5,097 | 10.8 | 0 | 0 | 0 | 0 | 10,985 | 23.3 | 0 | 0 | 0 | 0 | 5,058 | 10.8 |
| Virginia | 732,451 | 46.3 | 58,195 | 3.7 | 173,367 | 11.0 | 14,619 | 0.9 | 74,041 | 4.7 | 0 | 0 | 67,994 | 4.3 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Washington* | 479,090 | 33.7 | 79,669 | 5.6 | 168,679 | 11.9 | 59,629 | 4.2 | 165,329 | 11.6 | 35,920 | 2.5 | 51,390 | 3.6 |
| West Virginia | 247,429 | 33.8 | 57,303 | 7.8 | 73,175 | 10.0 | 4,890 | 0.7 | 44,449 | 6.1 | 82 | 0 | 29,323 | 4.0 |
| Wisconsin | 911,316 | 37.8 | 118,088 | 4.9 | 173,539 | 7.2 | 53,781 | 2.2 | 105,397 | 4.4 | 26,844 | 1.1 | 119,875 | 5.0 |
| Wyoming | 22,397 | 21.7 | 6,512 | 6.3 | 11,723 | 11.4 | 1,384 | 1.3 | 7,352 | 7.1 | 552 | 0.5 | 12,310 | 11.9 |
| Guam | 16,955 | 19.9 | 1,745 | 2.1 | 16,959 | 19.9 | 0 | 0 | 0 | 0 | 0 | 0 | 2,467 | 2.9 |
| Puerto Rico | 322,489 | 46.8 | 29,277 | 4.2 | 17,490 | 2.5 | 10,902 | 1.6 | 18,509 | 2.7 | 0 | 0 | 19,604 | 2.8 |
| Virgin Islands* | 11,317 | 13.1 | 18,660 | 21.6 | 691 | 0.8 | 0 | 0 | 0 | 0 | 0 | 0 | 7,948 | 9.2 |
| Bureau of Indian Affairs | 8,607 | 20.2 | 0 | 0 | 6,098 | 14.4 | 0 | 0 | 2,019 | 4.7 | 0 | 0 | 0 | 0 |

**Table 17.—Distribution of funds under NDEA title III, part A, by subject and by States and other areas: Fiscal year 1970—Continued**

| State or other area | English | Percent | Reading | Percent | Industrial arts | Percent | Arts and humanities[1] | Percent | Total |
|---|---|---|---|---|---|---|---|---|---|
| | (16) | (17) | (18) | (19) | (20) | (21) | (22) | (23) | (24) |
| Totals | $6,853,016 | 8.6 | $13,622,448 | 17.2 | $10,890,454 | 13.7 | $48,714 | 0.1 | $79,331,432 |
| Alabama | 231,223 | 13.7 | 528,075 | 31.2 | 14,371 | 0.8 | 0 | 0 | 1,693,410 |
| Alaska | 0 | 0 | 61,423 | 57.9 | 0 | 0 | 0 | 0 | 105,995 |
| Arizona | 31,982 | 4.4 | 217,638 | 29.7 | 82,624 | 11.3 | 0 | 0 | 732,152 |
| Arkansas | 67,990 | 7.5 | 248,679 | 27.3 | 0 | 0 | 0 | 0 | 911,174 |
| California* | 295,903 | 5.7 | 872,135 | 16.8 | 685,249 | 13.2 | 0 | 0 | 5,191,280 |
| Colorado | 99,769 | 9.1 | 113,126 | 10.4 | 163,049 | 14.9 | 0 | 0 | 1,091,481 |
| Connecticut | 176,017 | 16.5 | 195,839 | 18.4 | 8,838 | 0.8 | 0 | 0 | 1,067,155 |
| Delaware | 16,900 | 10.2 | 33,350 | 20.2 | 17,600 | 10.7 | 0 | 0 | 165,114 |
| District of Columbia | 31,671 | 15.5 | 30,508 | 14.9 | 33,197 | 16.2 | 0 | 0 | 204,746 |
| Florida | 185,763 | 5.5 | 1,698,148 | 50.3 | 171,352 | 5.1 | 0 | 0 | 3,372,548 |
| Georgia | 60,128 | 4.0 | 664,302 | 44.4 | 112,384 | 7.5 | 0 | 0 | 1,497,060 |
| Hawaii | 84,683 | 13.3 | 292,832 | 46.0 | 46,217 | 12.1 | 11,968 | 1.9 | 635,995 |
| Idaho | 26,973 | 8.3 | 38,579 | 11.8 | 86,738 | 26.6 | 0 | 0 | 326,668 |
| Illinois | 627,063 | 8.1 | 940,595 | 12.1 | 1,882,256 | 24.2 | 0 | 0 | 7,763,748 |
| Indiana | 133,008 | 7.5 | 268,743 | 15.1 | 806,919 | 45.3 | 0 | 0 | 1,778,186 |
| Iowa | 218,128 | 8.8 | 371,801 | 15.0 | 460,724 | 18.5 | 0 | 0 | 2,484,396 |
| Kansas | 65,064 | 7.4 | 62,820 | 7.1 | 71,564 | 8.1 | 11,003 | 1.3 | 880,369 |
| Kentucky | 51,572 | 7.7 | 213,506 | 32.0 | 18,980 | 2.8 | 0 | 0 | 666,597 |
| Louisiana | 68,005 | 5.7 | 151,529 | 12.6 | 111,533 | 9.3 | 0 | 0 | 1,200,107 |
| Maine* | 16,971 | 4.4 | 34,327 | 8.9 | 51,683 | 13.4 | 0 | 0 | 385,696 |
| Maryland | 147,481 | 12.1 | 223,169 | 18.4 | 62,512 | 5.1 | 0 | 0 | 1,214,790 |
| Massachusetts | 131,948 | 7.5 | 265,456 | 15.0 | 199,108 | 11.3 | 0 | 0 | 1,768,366 |
| Michigan | 323,900 | 6.8 | 682,025 | 14.4 | 831,818 | 17.5 | 0 | 0 | 4,747,133 |
| Minnesota* | 132,516 | 9.1 | 107,760 | 7.4 | 295,613 | 20.3 | 0 | 0 | 1,456,220 |
| Mississippi | 91,085 | 9.2 | 133,749 | 13.6 | 97,076 | 9.9 | 0 | 0 | 985,745 |
| Missouri | 200,749 | 10.1 | 272,514 | 13.7 | 266,159 | 13.4 | 0 | 0 | 1,986,673 |
| Montana | 45,356 | 14.5 | 61,370 | 19.6 | 33,858 | 10.8 | 0 | 0 | 313,626 |
| Nebraska | 26,664 | 5.2 | 20,981 | 4.1 | 9,443 | 1.8 | 0 | 0 | 516,582 |
| Nevada | 3,809 | 3.3 | 5,073 | 4.4 | 526 | 0.5 | 0 | 0 | 114,267 |
| New Hampshire | 3,594 | 4.9 | 7,194 | 9.8 | 0 | 0 | 575 | 0.8 | 73,366 |
| New Jersey | 210,775 | 6.8 | 257,905 | 8.3 | 498,997 | 16.1 | 0 | 0 | 3,095,212 |
| New Mexico | 12,336 | 14.7 | 44,506 | 53.1 | 1,005 | 1.2 | 0 | 0 | 83,846 |
| New York | 243,164 | 6.3 | 518,142 | 13.4 | 810,649 | 21.0 | 0 | 0 | 3,856,302 |
| North Carolina | 122,446 | 8.4 | 332,754 | 22.9 | 31,885 | 2.2 | 0 | 0 | 1,456,148 |
| North Dakota | 27,418 | 6.1 | 33,735 | 7.6 | 67,890 | 15.2 | 0 | 0 | 455,925 |
| Ohio | 548,126 | 14.5 | 409,217 | 10.8 | 919,727 | 24.3 | 0 | 0 | 3,779,008 |
| Oklahoma | 112,743 | 11.3 | 217,818 | 21.8 | 64,998 | 6.5 | 0 | 0 | 997,867 |
| Oregon | 179,501 | 11.4 | 240,097 | 15.2 | 162,384 | 10.3 | 0 | 0 | 1,580,085 |
| Pennsylvania | 210,141 | 5.9 | 468,180 | 13.0 | 335,105 | 9.3 | 0 | 0 | 3,592,532 |
| Rhode Island | 91,500 | 31.3 | 24,769 | 8.5 | 12,050 | 4.1 | 0 | 0 | 291,787 |
| South Carolina | 79,083 | 6.7 | 232,129 | 19.7 | 23,874 | 2.0 | 0 | 0 | 1,180,371 |
| South Dakota* | 11,673 | 5.5 | 4,245 | 2.0 | 45,845 | 21.6 | 0 | 0 | 212,246 |
| Tennessee | 145,441 | 10.3 | 247,428 | 17.5 | 43,120 | 3.1 | 0 | 0 | 1,411,642 |
| Texas | 522,182 | 12.1 | 857,259 | 19.9 | 302,856 | 7.0 | 0 | 0 | 4,307,082 |
| Utah* | 47,229 | 9.2 | 50,823 | 9.9 | 56,983 | 11.1 | 0 | 0 | 513,362 |
| Vermont | 1,469 | 3.1 | 10,240 | 21.7 | 14,270 | 30.3 | 0 | 0 | 47,119 |
| Virginia | 163,652 | 10.3 | 110,979 | 7.0 | 187,307 | 11.8 | 0 | 0 | 1,582,605 |
| Washington* | 107,745 | 7.6 | 169,162 | 11.9 | 103,973 | 7.3 | 0 | 0 | 1,420,586 |
| West Virginia | 108,933 | 14.9 | 148,794 | 20.4 | 16,527 | 2.3 | 0 | 0 | 730,905 |
| Wisconsin | 180,391 | 7.5 | 280,336 | 11.6 | 440,582 | 18.3 | 0 | 0 | 2,410,149 |
| Wyoming | 10,681 | 10.3 | 23,298 | 22.6 | 7,099 | 6.9 | 0 | 0 | 103,308 |
| Guam | 25,491 | 30.0 | 12,750 | 15.0 | 8,633 | 10.2 | 0 | 0 | 85,000 |
| Puerto Rico | 85,882 | 12.5 | 58,540 | 8.5 | 100,951 | 14.7 | 25,168 | 3.7 | 688,812 |
| Virgin Islands* | 4,579 | 5.3 | 32,223 | 37.3 | 10,970 | 12.7 | 0 | 0 | 86,388 |
| Bureau of Indian Affairs* | 4,520 | 10.6 | 19,873 | 46.8 | 1,383 | 3.3 | 0 | 0 | 42,500 |

*Estimate.

[1] Arts and humanities, formerly funded under a separate act, became eligible late in the fiscal year (April 1970).

**Table 18.—Ranking of States and other areas by percentage of total amount spent for subject areas under NDEA title III, part A: Fiscal year 1970**

| State or other area | Science | Mathematics | History | Civics | Geography | Economics | Modern foreign languages | English | Reading | Industrial arts | Arts and humanities[1] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | 45 | 44 | 43 | 42 | 42 | 35 | 44 | 44 | 45 | 42 | 4 |
| Alabama | 30 | 14 | 6 | 23 | 30 | 18 | 40 | 7 | 6 | 40 | .. |
| Alaska | 44 | *1 | .. | .. | .. | .. | .. | .. | *1 | .. | .. |
| Arizona | 26 | 6 | 33 | 26 | 17 | 32 | 36 | 41 | 7 | 17 | .. |
| Arkansas | 7 | 28 | 29 | 36 | 39 | 31 | 28 | 27 | 8 | .. | .. |
| Colorado | 29 | 5 | 13 | 21 | 9 | 19 | 9 | 19 | 36 | 12 | .. |
| Connecticut | 15 | 24 | 16 | 25 | 27 | .. | 6 | 3 | 19 | 41 | .. |
| Delaware | 33 | 4 | 8 | .. | 28 | .. | 22 | 17 | 14 | 20 | .. |
| Florida | 37 | 38 | 31 | 18 | 11 | 15 | 42 | 38 | 2 | 32 | .. |
| Georgia | 31 | 8 | 43 | 2 | 42 | 27 | 37 | 42 | 4 | 26 | .. |
| Hawaii | 42 | 35 | 32 | 24 | 16 | 21 | 39 | 8 | 3 | 15 | 2 |
| Idaho | 24 | 34 | 19 | 13 | 19 | .. | 41 | 22 | 33 | 3 | .. |
| Illinois | 22 | 32 | 35 | 6 | 15 | 13 | 18 | 23 | 31 | 5 | .. |
| Indiana | 40 | 43 | 39 | 38 | 34 | 26 | 13 | 26 | 22 | *1 | .. |
| Iowa | 28 | 15 | 17 | 12 | 12 | 8 | 23 | 20 | 25 | 7 | .. |
| Kansas | 12 | 39 | 3 | 33 | 26 | 6 | 5 | 30 | 42 | 25 | 3 |
| Kentucky | 25 | 7 | 20 | 14 | 22 | 20 | 43 | 29 | 5 | 35 | .. |
| Louisiana | 5 | 10 | 40 | 30 | 37 | 12 | 7 | 37 | 30 | 24 | .. |
| Maryland | 23 | 30 | 2 | 9 | 33 | 14 | 35 | 10 | 18 | 31 | .. |
| Massachusetts | 14 | 16 | 23 | 10 | 18 | 28 | 11 | 28 | 23 | 18 | .. |
| Michigan | 19 | 29 | 21 | 15 | 10 | 11 | 29 | 31 | 26 | 9 | .. |
| Missouri | 45 | 44 | 37 | 8 | 3 | *1 | *1 | 18 | 27 | 14 | .. |
| Montana | 13 | 22 | 38 | 19 | 36 | 23 | 38 | 6 | 17 | 19 | .. |
| Nebraska | 2 | 13 | 30 | 5 | 6 | 7 | 21 | 39 | 45 | 39 | .. |
| Nevada | 41 | 26 | 42 | 42 | *1 | .. | 4 | 43 | 44 | 42 | .. |
| New Hampshire | *1 | 37 | 11 | 41 | 41 | .. | 44 | 40 | 37 | .. | 4 |
| New Jersey | 9 | 27 | 26 | 34 | 32 | 22 | 8 | 32 | 40 | 10 | .. |
| New York | 39 | 3 | 5 | 35 | 40 | 3 | 26 | 34 | 28 | 6 | .. |
| North Carolina | 16 | 40 | 7 | 29 | 5 | 25 | 20 | 21 | 9 | 37 | .. |
| North Dakota | 3 | 42 | 34 | 20 | 29 | 29 | 34 | 35 | 41 | 11 | .. |
| Ohio | 32 | 20 | 14 | 17 | 31 | 10 | 27 | 5 | 35 | 4 | .. |
| Oklahoma | 27 | 11 | 22 | 7 | 20 | 5 | 15 | 13 | 11 | 30 | .. |
| Oregon | 34 | 31 | 4 | 3 | 4 | 2 | 31 | 12 | 21 | 21 | .. |
| Pennsylvania | 6 | 12 | 28 | 37 | 24 | 30 | 19 | 36 | 29 | 23 | .. |
| Rhode Island | 38 | 2 | 27 | 40 | 14 | 35 | 14 | *1 | 39 | 33 | .. |
| South Carolina | 4 | 19 | 24 | 31 | 38 | 24 | 30 | 33 | 16 | 38 | .. |
| Tennessee | 8 | 18 | 36 | 39 | 8 | 34 | 25 | 16 | 20 | 34 | .. |
| Texas | 18 | 23 | 18 | 27 | 25 | 17 | 10 | 11 | 15 | 28 | .. |
| Vermont | 43 | .. | .. | *1 | .. | .. | 3 | 44 | 12 | 2 | .. |
| Virginia | 11 | 36 | 12 | 28 | 21 | .. | 16 | 14 | 43 | 16 | .. |
| Washington | 21 | 21 | 9 | 4 | 2 | 4 | 24 | 24 | 32 | 27 | .. |
| West Virginia | 20 | 9 | 15 | 32 | 13 | 33 | 17 | 4 | 13 | 36 | .. |
| Wisconsin | 17 | 25 | 25 | 11 | 23 | 9 | 12 | 25 | 34 | 8 | .. |
| Wyoming | 35 | 17 | 10 | 22 | 7 | 16 | 2 | 15 | 10 | 29 | .. |
| Guam | 36 | 41 | *1 | .. | .. | .. | 32 | 2 | 24 | 22 | .. |
| Puerto Rico | 10 | 33 | 41 | 16 | 35 | .. | 33 | 9 | 38 | 13 | *1 |

*Highest in each category.

[1] Arts and humanities did not become eligible until late in the fiscal year (April 1970).

title III–A program, and rank order of expenditure by academic subjects.

### Loans to Private Nonprofit Elementary and Secondary Schools

Loans to nonprofit schools under title III–A are administered directly by the U.S. Office of Education.

During fiscal year 1970, six loans, benefiting more than 2,000 students, were approved for elementary and secondary schools in four States. The total amount approved was $191,050, and the distribution is shown in the following tabulation:

| State | City | School | Amount |
|---|---|---|---|
| California | Northridge | Highland Hall School | $86,700 |
| Colorado | Denver | Yeshiva Toras Chaim | 3,450 |
| Louisiana | New Orleans | St. Augustine H.S. | 24,500 |
| New York | Kew Gardens | The Queens School | 7,900 |
| | Athol Springs | St. Francis H.S. | 58,500 |
| | Brooklyn | Yeshiva of Eastern Parkway | 10,000 |

Loans were made for the acquisition of equipment and instructional materials and for minor remodeling in the areas of science, mathematics, modern foreign languages, history, geography, industrial arts, English, and reading. They were used in these areas to the extent shown below:

| Subject | Amount | Percentage of total |
|---|---|---|
| Science | $ 92,312 | 48.3 |
| Mathematics | 17,639 | 9.2 |
| Modern foreign languages | 986 | 0.5 |
| History | 274 | 0.1 |
| Geography | 2,048 | 1.1 |
| Industrial arts | 50,625 | 26.5 |
| English | 946 | 0.5 |
| Multiple subjects (audiovisual equipment and materials) | 26,220 | 13.7 |
| Total | $191,050 | 99.9 |

The largest loan for a single subject totaled more than $50,000, and was used to purchase industrial arts equipment for courses in metalworking, electricity, graphic arts, drafting, and woodworking.